

V. 61
No. 6

THIS ISSUE 155,000 COPIES



JUNE

1941

THIS
IS IT!



STAFAST*

General Chemical Company's
HORMONE SPRAY

FOR

**Better Size
Better Color
Better Quality**

**THROUGH
PREVENTION OF PREMATURE**

FRUIT DROP

The General Chemical Company enters this new field as a *manufacturer* of synthetic plant hormones. From test tube to consumer's package STAFAST is a General Chemical Company product.

STAFAST is presented as an economic means of attaining a higher yield of "Fancy" and "Extra Fancy" fruit.

* Trade Mark of General Chemical Co.

FOR A MORE PROFITABLE HARVEST

ORCHARD BRAND
Arsenate of Lead

BUILDS
FILM
COVERAGE
AGAINST
CODLING MOTH!

The flat, flake-like particles of Orchard* Brand Arsenate of Lead, Standard or "Astringent," permit the building of smooth, unbroken coverages such as this:



Properly applied, these flake-like particles *do not* lend themselves to the formation of splotchy, "thick and thin" coverages such as this:



The development of flat particle lead arsenate represents a significant forward step toward better codling moth control. Flat particle arsenate of lead was originated by General Chemical Company research.

* Reg. U. S. Pat. Off.

GENICIDE

PATENT PENDING • TRADE MARK REG. U. S. PAT. OFF.

SPRAY PROGRAMS FOR 1941
ARE EVEN MORE EFFICIENT
THAN IN 1940



GENICIDE is the new, synthetic organic insecticide made available for the first time in 1940. Its performance under commercial growing practice justified the claim that it is a "High-Speed Codling Moth Killer." For many growers, it eliminated the "headaches" of residue removal while holding stings and worm entries to an extremely low percentage.



1940 also represented the third year of successful test and demonstration work against the Oriental Fruit Moth. GENICIDE can now be recommended for use against the late broods that directly attack the ripening fruit. Against heavy infestations, the use of three carefully timed GENICIDE sprays has shown an average increase of 35% in clean peaches—and 35% of a peach crop will more than pay for three GENICIDE sprays.

COSTS 25% LESS

Improvements in physical properties now render GENICIDE more naturally adhesive. In addition to this, the development of an improved and less expensive sticker*, or "deposit builder," now permits the use of only 1½ pounds of GENICIDE to each 100 gallons of water, rather than the two pounds previously recommended. The new, lower dosage will actually build up heavier and more closely knit spray deposits which insure even better protection against the codling moth.



GENERAL CHEMICAL COMPANY

40 RECTOR STREET, NEW YORK, N. Y.

Sales Offices: Atlanta • Baltimore • Boston • Bridgeport (Conn.) • Buffalo • Charlotte (N. C.)
Chicago • Cleveland • Denver • Detroit • Houston • Kalamazoo • Kansas City • Milwaukee • Minneapolis
Newark (N. J.) • New York • Philadelphia • Pittsburgh • Providence (R. I.) • St. Louis • Utica (N. Y.)

Pacific Coast Sales Offices: San Francisco • Los Angeles
In Canada: The Nichols Chemical Company, Limited • Montreal • Toronto • Vancouver

* Genifilm—Trade Mark Reg. U. S. Pat. Off.

SAVE on Fuel
SAVE on Upkeep
SAVE on Depreciation

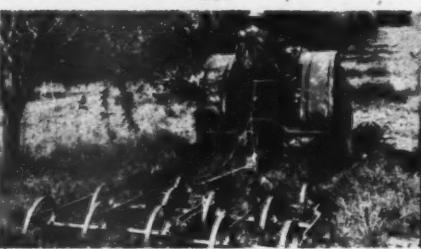
MAKE
MORE MONEY
WITH A
JOHN DEERE



The two-three plow Model "AO" with John Deere offset disk harrow. Smaller is the two-plow Model "BO."



It's easy to slip under the low-hanging branches. Model "AO" with John Deere field and orchard cultivator.



Woods haven't a chance with this John Deere spring tooth harrow being pulled by a Model "AO" tractor.



The gasoline-burning Model "L" doing an excellent job in berries. Similar in design is the Model "LA".

MAIL
THIS
COUPON

John Deere, Dept. AF-42, Moline, Ill.
Please send full information on the tractors and equipment I have checked.
 Models "AO" and "BO" Tractors.
 Models "L" and "LA" Tractors.
 Disk Harrows.
 Field and Orchard Cultivators.
 Berry Cultivators.
 Spring Tooth Harrows
 Orchard Cultivators.

Name _____
Town _____
State _____ R.F.D. _____

Because of John Deere exclusive two-cylinder engine design you have an economy of operation, a dependability of performance, an ease of handling to be found in no other tractor.

You're money ahead . . . you're time ahead . . . you're work ahead with a John Deere Grove or Orchard Tractor.

The reason is a very simple one—simple as a John Deere Tractor itself—namely, John Deere's exclusive two-cylinder engine design. No other tractor has this feature. No other tractor can give you its advantages.

You can burn the low-cost fuels, the recommended fuel for a John Deere. This means that your fuel dollars go farther . . . your costs are lower . . . your profit greater.

Due to two-cylinder engine design, you enjoy the efficiency of a straight line transmission with no bevel gears to consume power, of the belt pulley on the crankshaft. You have the proper distribution of weight for maximum traction . . . the simplicity of fewer but heavier parts for longer life and easier maintenance.

Get up on the seat of a John Deere. Put it through its paces. Thrill to its smooth, unfaltering power . . . to the short turns at the row ends and around trees . . . the way it slips under the low hanging branches . . . the convenience of its hand clutch . . . the comfortable seat, the roomy platform.

There's good reason, mighty good reason, why an ever increasing number of growers and farmers are choosing John Deere Two-Cylinder Tractors. Your John Deere dealer will be glad to arrange a demonstration of the model which best fits your needs: the two-three plow Model "AO", the two-plow Model "BO", the larger one-plow Model "LA", and the one-plow Model "L". The coupon below brings full information by mail.

JOHN DEERE
2-Cylinder
TRACTORS

FOR ECONOMY
SIMPLICITY
DEPENDABILITY
EASE OF HANDLING

CHEVROLET

First in performance... first in economy... among all biggest-selling low-priced cars



It out-sprints, out-climbs, out-rides the others—and it saves you money on gas, oil and upkeep

It will pay you to buy your new car *now*, and it will pay you *doubly* to buy the most popular car of them all, Chevrolet for '41!

Because Chevrolet brings you A-1 advantages in *quality*, and it brings you A-1 advantages in *economy*.

It sells in the lowest-price field... saves you money on gas, oil and upkeep... and it alone has a style-setting *Body by Fisher* of the same type and size featured on high-priced cars!

It sells in the lowest-price field... saves you money on gas, oil and upkeep... and it alone has a powerful, dependable engine of the same world-champion Valve-in-Head type featured on high-priced cars!

It sells in the lowest-price field... saves you money on gas, oil and upkeep... and it alone out-accelerates, out-climbs and out-rides all other cars in the biggest-selling low-price group!

Better see your nearest Chevrolet dealer—today!

CHEVROLET MOTOR DIVISION, General Motors Sales Corporation
DETROIT, MICHIGAN

90-H.P. VALVE-IN-HEAD ENGINE	THE NEW CHEVROLET		"QUALITY QUIZ"		THE NEW CHEVROLET	
	MR. 2 CAR	MR. 3 CAR	MR. 2 CAR	MR. 3 CAR	MR. 2 CAR	MR. 3 CAR
CONCEALED SAFETY-STEPS	YES	NO	NO	NO	NO	NO
VACUUM-POWER SHIFT <i>AT NO EXTRA COST</i>	YES	NO	NO	NO	NO	NO
BODY BY FISHER <i>WITH STEEL TONNEAU TOP</i>	YES	NO	NO	NO	NO	NO
UNITIZED KNEE-ACTION	YES	NO	NO	NO	NO	NO
BOX-GIRDER FRAME	YES	NO	NO	NO	NO	NO
ORIGINAL FISHER NO DRAFT VENTILATION	YES	NO	NO	NO	NO	NO
TIPTOE-MATIC CLUTCH	YES	NO	NO	NO	NO	NO
EYE IT... TRY IT... BUY IT!						

YOU'LL SAY "FIRST BECAUSE IT'S FINEST!"

Entered as second-class matter at Post Office at Cleveland, Ohio, under the Act of March 3, 1879. Additional entry at Mount Morris, Illinois.



How a softer tire for airplanes made *Life easier* for 800,000 farmers!

NOT long ago airplane tires were built like automobile casings, and inflated to the same high pressure.

That was the trouble with them — *they were too hard!* In soft ground they bogged down, causing dangerous ground-loops and nose-overs.

Yet, such accidents are practically unknown on today's giant airplanes, thanks to Goodyear's development of a big fat pillow-like low-pressure tire called the Airwheel.

Too big and buoyant to bog down, Airwheels rolled smoothly and safely over sand, snow and even plowed ground.

It was this ability of Airwheels to negotiate rough ground that gave us the clue to something destined to lighten the lot of farmers the world over!

Like airplanes, farm tractors were then having trouble in soft ground. Their hard steel wheels clogged and churned. For all their

power, they plowed not much faster than a horse.

So back in 1931 we put a tractor on Airwheels — *the world's first pneumatic-tired farm tractor.* It sailed through where steel wheels stalled. We knew we had something, if we could make these airplane-type tires sturdy enough for farm use.

On Goodyear's great 32,000-acre experimental farm in Arizona we developed the Airwheel low-pressure principle into the now-famous Goodyear Sure-Grip tractor tire with its tough, buttressed, open-center tread that pulls through the toughest going.

The rest is history. Farmers were quick to learn tractors would do more work in less time — pull

heavier loads and use less fuel on these specially designed Goodyear tractor tires. They liked their greater comfort, their freedom from spine-jolting thumps.

Today more than 90% of all farm tractors are sold on pneumatic tires, more than 40% of farm implements. And more than 800,000 American farmers now farm on rubber — *because it makes life easier!*

The progressive spirit that saw a modernized agriculture in an airplane tire typifies Goodyear's leadership in making rubber more serviceable to mankind. More than forty years of such enterprise in the public welfare has won for Goodyear "the greatest name in rubber"!

Airwheel—T.M. The Goodyear Tire & Rubber Company



JUNE

VOL. 61

1941

NO. 6

AMERICAN FRUIT GROWER

The
NATIONAL FRUIT MAGAZINE

CONTENTS

AMERICAN FRUIT GROWER Presents Future Possibilities of Hormone Sprays	9
Preventing Pre-Harvest Drop—Other Uses with Apples	10
Hormone Sprays May Aid Citrus—Lower Acid Content	11
Hormones Promise to Solve Problem of Transplanting Pecans	12
Further Observations on Hormones and Plant Reactions	12
The Growth of Modern Cold Storage on the Fruit Farm	13
Here Are Three Types and Sizes of Storages to Help You in Your Planning	14
State News	16
Nationwide News	16
Marketing	17
Classified Index to Buyer's Guide	19
Insect and Disease Control	20
Soil Management	30
Harvest Sprays	31
Pruning and Grafting	32
Nursery Stock	33
Fencing and Trellises	34
Frost Protection	34
Tillage Equipment	35
Commission Merchants and Marketing Agencies	37
Irrigation and Drainage	38
Picking	39
Storages	40
Hail	41
Packing House Equipment	42
Packages and Packaging	43
Fruit Processing	45
Near-By Dealers in Orchard Supplies	46

AMERICAN FRUIT GROWER

Published Monthly by
AMERICAN FRUIT GROWER PUBLISHING CO.,
1370 Ontario St., Cleveland, O.

E. G. K. MEISTER

Publisher

DEAN HALLIDAY DR. J. H. GOURLEY
Managing Editor Associate Editor
E. A. KRAUSE RICHARD T. MEISTER
Associate Editor Field Editor
MARY LEE ADAMS T. J. TALBERT
Home Economics Editor Contributing Editor

EDWARD MEISTER, JR.
Advertising Manager

BRANCH OFFICES—NEW YORK CITY, Room 1212,
30 Rockefeller Plaza. Phone—Circle 7-1863.

REPRESENTATIVES—J. C. BILLINGSLEY CO., 123
W. Madison St., Chicago, Ill. Phone—Central
6465

SUBSCRIPTION RATES
Domestic Except Cleveland, 3 years \$1.00. 1 yr. 50c.
Cleveland, Canada and foreign \$1.00 per year
Single Copy, 10 Cents.

LIBRARY

BELL AGR. EXP. STATION



FRUIT TO PLAY IMPORTANT ROLE IN NEW NATIONAL HEALTH ECONOMY

AMERICAN FRUIT GROWER REPORTS RECOMMENDATIONS OF NUTRITIONAL CONFERENCE FOR DEFENSE

By RICHARD T. MEISTER

WASHINGTON—The recent three-day meeting here of the National Nutritional Conference for Defense developed four recommendations to be presented to President Roosevelt which directly concern the nation's fruit growers. These recommendations which are designed to eliminate the poor diets and under-nourishment found to be widespread in this country are part of a series of measures meant ultimately to reorganize our national economy and bring about a new plan for American living.

The first of these recommendations calls for the encouragement of greater production by agriculture of protective foods which contain health-giving vitamins and minerals. These protective foods include such products as fruits and vegetables, milk and milk products, eggs, and lean meats. According to Secretary of Agriculture Wickard, who spoke before the conference, it would be necessary to consume twice as many fruits and green vegetables, including apples, green beans, cabbage, etc., and 70 per cent more citrus fruit and tomatoes if everyone in the United States is to have a nutritionally sound diet. Because huge surpluses of wheat, cotton, and tobacco have accumulated, it was suggested that some of the land now used for these products might be planted to the so-called protective foods.

The second of the recommendations asked for efforts to improve food distribution, including processing, marketing, packaging, and labeling, to bring about real economies for the consumer. It was pointed out that these efforts would include vigorous prosecution of illegal practices under

the anti-trust laws and the laws relating to unfair trade practices wherever such practices result in unjustifiable increases in food prices.

The third recommendation asked for full use of any practical devices such as the Stamp Plan, free school lunches, and low-cost milk distribution which will bring nourishing, adequate meals to those who could not otherwise afford them, and at the same time help to distribute food surpluses at a fair return to the grower.

The fourth recommendation asked that encouragement in every practical way be given to more production for home use by rural people, especially those at low income levels. It was brought out that large numbers of farm families can greatly improve their nutritional status by making more complete use of the resources on their own farms.

It is difficult to determine what concrete effects these recommendations will have on the fruit growing industry. A great deal depends on how well the recommendations are carried out. Briefly, it is expected that the President will set up machinery to put the program into effect as one of the keystones in the national defense effort.

The Nutritional Conference for Defense marks the beginning of a new trend in American eating habits and home economy. More emphasis will be placed on fruits and other foods which contain elements Americans need for sound health. If this movement expands as rapidly as Washington expects, it can mean a greater demand in the future for both deciduous and citrus fruits.

FOR *Every* MAN'S NEED
-JUST THE *Right* FARMALL



Here the year 'round all-purpose small Farmall-A works admirably in the Adolph Sempert orchard at Sodus, Mich.

ALREADY the new streamlined McCormick-Deering FARMALLS are 'way beyond the hundred-thousand mark in use on farms throughout the country. Since Harvester pioneered this great general-purpose idea, 17 years ago, over a half-million FARMALLS altogether have been called into the service of agriculture. Experience proves that tractor utility is at its best where Farmall power takes the burden all through the year.

Here we show the smallest unit, Farmall-A,

and then there are Farmalls "B", "H", and "M"—just the right one for *every requirement*. Besides the streamlined FARMALLS the International Harvester line now offers 4 TracTracTors and 5 standard and orchard-type wheel tractors. They can all be bought on easy terms on the Income Purchase Plan. See the nearby International Harvester dealer for complete information about these tractors and the machines built to work with them.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago, Illinois

McCORMICK-DEERING FARMALL



AMERICAN FRUIT GROWER PRESENTS FUTURE POSSIBILITIES OF HORMONE SPRAYS

Growers all over the nation will be using the Harvest sprays this summer and fall. AMERICAN FRUIT GROWER is interested in hearing of the results growers obtain and asks that readers do not hesitate to write and tell of their findings. . . . The introduction to this section was written by Dr. F. E. Gardner, principal Pomologist, U.S.D.A. The material on the following pages concerning apples and citrus fruits is based on Dr. Gardner's observations. —Editors.

THE numerous fundamental researches with hormones and the varied responses they bring about in plant parts are pointing the way to increasing numbers of practical applications in the solution of horticultural problems.

In discussing some of these horticultural applications, and in pointing out future possibilities of the hormones, perhaps the most logical approach is to consider the action of the hormones on different fruits.

The most frequently observed response to the hormones is a stimulation of growth. This growth, however, instead of being general in character, usually is restricted to a particular part of an organ of the plant and, indeed, even to particular groups of cells within that organ or part.

Sometimes this stimulated growth is orderly in character, resulting in seemingly normal tissue differentiation and the development of more or less nor-

mal organs such as roots and fruits. Sometimes, however, the growth is in the wildest disorder with certain cells dividing at top speed, resulting in twisted, disarranged organs and in grotesque proliferations and galls.

Stimulation of growth, however, is not the only result which can be obtained from the hormones. In fact, under certain conditions growth inhibition results and this observation has been made use of in horticultural practice.

Whether the use of hormones will result in stimulation or inhibition, in orderly or disorderly development, or in any observable effect whatever, depends on a great many factors such as the particular hormone used, the concentration applied, the manner of its application, the part or organ of the plant receiving the application, and its condition at the time with respect to sensitivity to stimulus.



"The most successful and extensive use of hormones has been in the control of pre-harvest drop of apples."



"Many feel more favorable results with peaches are not obtained because this fruit has an exceedingly short stem."

PREVENTING PRE-HARVEST DROP —OTHER USES WITH APPLES

PREVENTION OF DROP

Perhaps the most successful use of hormones has been in the control of pre-harvest drop of apples. To prevent this drop, which in many cases occurs just prior to the development of proper color necessary for top grade fruit, the grower can spray his orchard with very dilute solutions of naphthalene acetic acid or naphthalene acetamide just as drop first begins. With apples the spray takes effect within a day or two and lasts for several weeks, depending somewhat on the variety.

BLOSSOM DELAY

The ability of the hormones to check bud development has found several interesting horticultural applications. One of these is in the delaying of fruit tree blossoming in the spring, thereby lessening the danger of frost injury to the flowers.

WIDE-ANGLED CROTCHES

Hormones also have been found to affect the curvature of stems. When hormones are applied to growing stems or leaf petioles, a greater rate of growth is obtained on the side of application than on the opposite untreated side, thus causing a bend away from the side of treatment. This action of hormones has been used in the training of young fruit trees when they are first set in the orchard. It has been reported that narrow angles which make for structurally weak crotches can be avoided by use of the hormone indole butyric acid.

IMPROVING FRUIT SET

It had been thought that hormones possibly might induce self-sterile varieties to set fruit. However, all attempts thus far to accomplish this have failed.

PEACHES

PREVENTION OF DROP

Compared with the extensive experiments of the hormone spray on apple trees, there have been few tests made during the past season on peach trees.

One test made on the effects of naphthalene acetic acid spray in delaying the drop of peach fruits showed no significant difference between sprayed and unsprayed trees. Many research workers feel that the reason more favorable results are not obtained from the hormone spray with peaches is because this fruit has an exceedingly short stem which is diffi-

cult to hit with spray material. Some growers report, however, that application of the spray keeps the fruit on the tree for five to six days longer.

In one experiment, using one row of 18 vigorous nine-year-old Elberta trees, alternate trees were sprayed with .001 per cent naphthalene acetic acid and the remaining trees were left unsprayed.

This spray application was made on September 4, about two days before the first picking on this variety. The fruits were allowed to drop and a record was made of the number of drops picked up daily under each tree.

Some drop of mature fruit injured by Oriental peach moth occurred after the spray was applied and continued on successive days. On the third day after the spray was applied, mature sound fruit began to drop and the drop continued until September 16, when all fruit had fallen. Still, no significant difference between the sprayed and unsprayed trees was evident.

BLOSSOM DELAY

Peach trees, sprayed just prior to bud opening with a strong hormone solution, were delayed about 10 days in blossoming.

PEARS

PREVENTION OF DROP

In Missouri one limb of a Koonce pear tree bearing 17 fruits was sprayed and another limb, also bearing 17 fruits, was left unsprayed. Twelve days after the application the sprayed limb still bore 13 pears while the unsprayed limb bore only six.

One research worker computed that by using the hormone spray on his pear trees he saved approximately 55 pears per tree or 5500 pears per acre. On this basis, figuring four pears to a pound, he claims he saved 1375 pounds per acre. At \$20 per ton this fruit brought him \$13.75, which did not quite cover the cost of application.

Generally sprayed pear trees give no indication of results until about three days after the first application. By the end of the sixth day, there is considerable less dropping and effects are still more evident 12 or 16 days later.

On an experiment with D'Anjou pears, a decided decrease in drop was observed with the hormone spray taking effect within 24 hours after application.

Before the spraying the fruit was dropping badly but after application the fruit no longer dropped so readily.

HORMONE SPRAY MAY AID CITRUS SET —LOWERS ACID CONTENT

PREVENTION OF DROP

The most pronounced effects of hormones on citrus are to be obtained by application early in the development period of the fruit. In contrast, the effect of the sprays on apples, so far in advance of maturity, is lost by picking time.

Hormone sprays were applied to Pineapple oranges in Florida during the last week in November. Thereafter at intervals of three weeks different rows of trees in the same grove were sprayed until February 5 when the last application was made, two weeks prior to picking.

The trees used in the experiment were eight years old, on rough lemon roots, and were carrying a rather full crop, averaging four and two-fifths boxes per tree.

Although the drop over the entire grove was usually light, results showed that the first application in November resulted in a reduction of drop compared with the unsprayed control row of trees. The latest sprays on February 5 were entirely without effect.

During picking the tightness of the fruit on the first-sprayed trees was very noticeable, indicating that sprays applied very much earlier than November may give worth-while protection. During the coming season, the effect of time of hormone spray application on citrus will be studied further.

BLOSSOM DELAY

Sprays of naphthalene acetic acid and naphthalene acetamide were applied to Florida orange and grapefruit trees at various dates prior to start of the spring flush in order to learn if the hormones would delay starting time, but no evidence of this was discovered.

IMPROVING FRUIT SET

It was thought that hormone application on oranges and grapefruit might improve fruit set. However, experiments as yet have not been very successful, although possibilities have by no means been exhausted.

LOWERING ACIDS

With the food-mobilizing ability of the hormones in mind, experiments were started to determine if these sprays would increase the solids in citrus juices. The first sprays were applied as early as June 14, and on successively later dates to additional blocks of trees. No significant differ-

ences between sprayed and unsprayed trees were found in the juice solids.

The juice acids, however, were reduced in all instances in which the sprays were applied early in the season. Although the acids were lowered early in the season, with progressing maturity, acids of both sprayed and unsprayed fruit eventually reached approximately the same point. Sprays applied to Valencias late in the season on January 22 had little or no effect on acids. As with Pineapple oranges sprayed for drop control, it would appear that for best results the spray should be applied on all citrus early in the growing season.

CHERRIES

STOPPING SHRIVELING

Gareth Clark of Spencerport, N. Y. obtained good results with the use of hormone sprays on cherries. He cautions, however, that his experiments were only one year's casual observation on a small scale and results may vary with further tests.

He sprayed an experimental block of Montmorency trees with naphthalene acetic acid, two grams to 100 gallons, on July 28, the day he normally finishes cherry picking. To test this application of growth substances, he left check trees.

On August 21, he picked the fruit from all the experimental trees, noticing that more than half the stems on the unsprayed trees were browned and dried out, causing the fruit to shrivel, while on the sprayed trees scarcely one per cent of the fruit had shriveled. The stems were green and the cherries were firm and plump.

HIGHER SUGAR CONTENT

Because the cherries stayed longer on the sprayed trees, they ripened more fully and the acid content decreased while the amount of sugar increased. With these cherries Mr. Clark found it was not necessary to add sugar when making cherry juice.

SAVING LABOR COSTS

Clark believes that the spray will be especially useful this summer on canning cherries. He claims that by using the spray he can harvest all his cherries with one picking, doing away with two or three pickings. This, he says, will save labor—a point worth special consideration with the present labor scarcity.



"The most pronounced effects of hormones on citrus are obtained by application early in development period of the fruit."



"By using the spray cherries can be harvested with one picking, doing away with two or three pickings. Labor is saved."

HORMONES PROMISE TO SOLVE PROBLEM OF TRANSPLANTING PECANS

PROMOTES ROOT GROWTH

Satisfactory results have followed hormone applications to pecan trees during transplanting.

Small holes just large enough for a round toothpick were bored in the taproots of the transplants. The toothpicks were dipped in a hormone solution and used to plug up the holes.

Considerably larger amounts of new roots were formed on the treated trees as compared with untreated check trees but there was no significant increase in top growth during the first year.

The difficulty of getting pecan transplants quickly re-established so they live and make average new growth during the first year or two after transplanting has been a serious problem which the present experiments give promise of solving.

The above described method or some modification thereof is applicable to those trees, like pecans, which have few fibrous roots close to their main axis and which, therefore, lose the greater part of their feeding roots in the process of digging.

portion of fruits and the sprayed trees showed a small drop. The sprayed trees dropped only about 16 per cent as much fruit as the check trees, a saving of 84 per cent, which amounted to about 250 fruits per tree.

* * *

FURTHER OBSERVATIONS ON HORMONES AND PLANT REACTIONS

Some 60 years ago, as pointed out by Dr. F. E. Gardner, principal pomologist, U.S.D.A., the botanist, Julius Sachs, asserted that a specific root forming substance is manufactured in the leaves of plants and moves to lower portions to cause root development. It remained, however, for modern plant physiologists and chemists to demonstrate the correctness of Sachs' hormone theory by extracting root stimulating substances from plants, determining their chemical structure, and then synthesizing in the laboratory those compounds and hosts of others which, although not known to occur in plants, have hormone-like activity.

In general it may be said that a relatively high concentration of hormones and a prolonged exposure to their action is necessary for the stimulation of root initiation. To accomplish this, cuttings usually are treated by soaking their basal portions for six to eight hours or more in a water solution of the hormone, or by dusting on the bases of the cuttings a talc powder containing the hormone which will remain in contact with the tissues to provide the prolonged treatment necessary.

The development of fruit without fertilization—called parthenocarpy—is not uncommon in nature. Familiar examples of normally occurring parthenocarpic fruits are the banana, the Thompson seedless grape and the navel orange. With some fruits the stimulus provided by pollination, even though fertilization does not ensue, is sufficient to cause fruit development. It was this observation, that pollen will in some cases stimulate fruit setting even when fertilization cannot take, which led to the discovery that the hormones can be used to cause fruit development in a number of plants. It was found that pollen contains naturally occurring hormones and that extracts of certain pollens can induce parthenocarpy.

PLUMS

Fruit from the plum tree may drop any time during the growing season but dropping is most marked after the normal thinning period. For best results the hormone spray should be applied to plum trees about two weeks after thinning. One experiment revealed that a decrease in the number of drops by about 25 per cent may be expected after use of the hormones.

Though appreciable decrease is noticed in the drop of the sprayed fruit, no difference in the quality of the plums is noticed after application of the hormone spray.

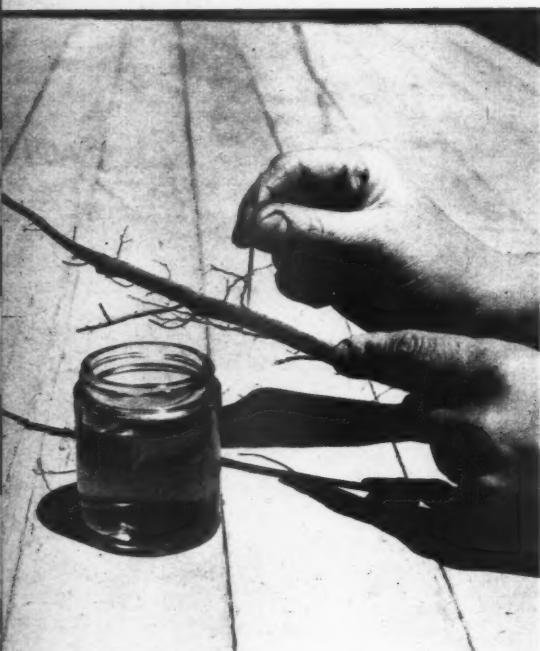
APRICOTS

PREVENTION OF DROP

Hormone sprays were applied to Stewart apricots in California on April 27 and May 8. Between the time of the first and second spray period, all the trees behaved alike. No differences were observed. However, at the time of the second spray, the check trees continued to drop a large

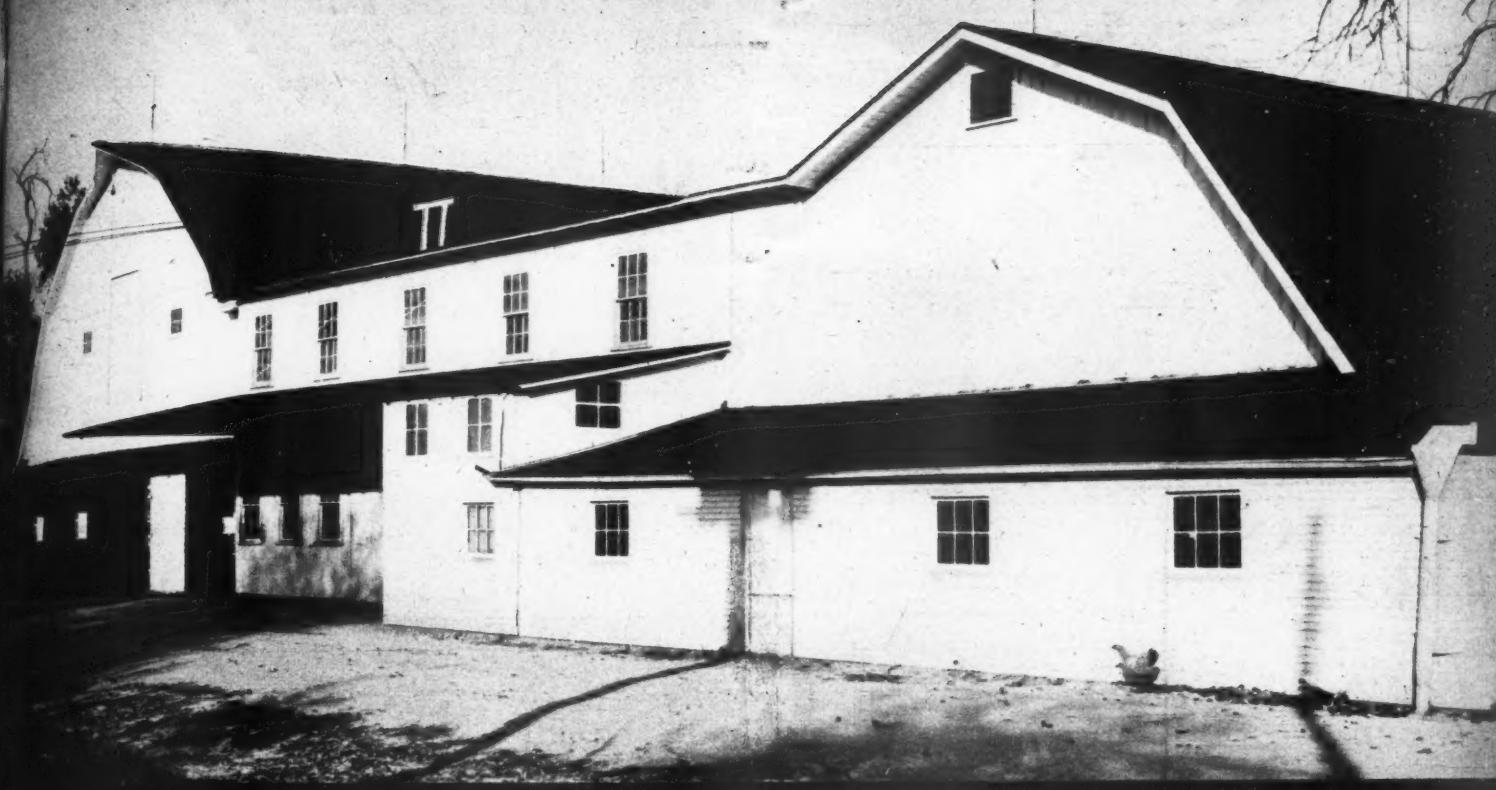


Above—The toothpick is dipped in the hormone solution before being inserted in the root. Below—The toothpick carrying the hormone solution is pushed into a hole bored in the root.



Below—The end of the toothpick is broken off and it now plugs the hole. Pecan trees treated in this manner form considerably larger amounts of roots and grow better.





A big step toward more orderly and more profitable marketing of fruit crops has been the widespread construction of fruit farm storages.

THE GROWTH OF MODERN COLD STORAGE ON THE FRUIT FARM

CONSTRUCTION of cold storages has been accelerated during the last 10 years because of the fruit grower's desire to overcome marketing problems by erecting his own storage and controlling his marketing. Emphasis also is being placed nowadays on correct marketing as well as on growing, and the orchardist has been studying ways of presenting to the housewife fruit in its most delicious and appealing form. Growers are finding that the control of packaging and marketing which storage on the farm makes possible enables them to regulate profitably the flow of fruit crops to the consumer.

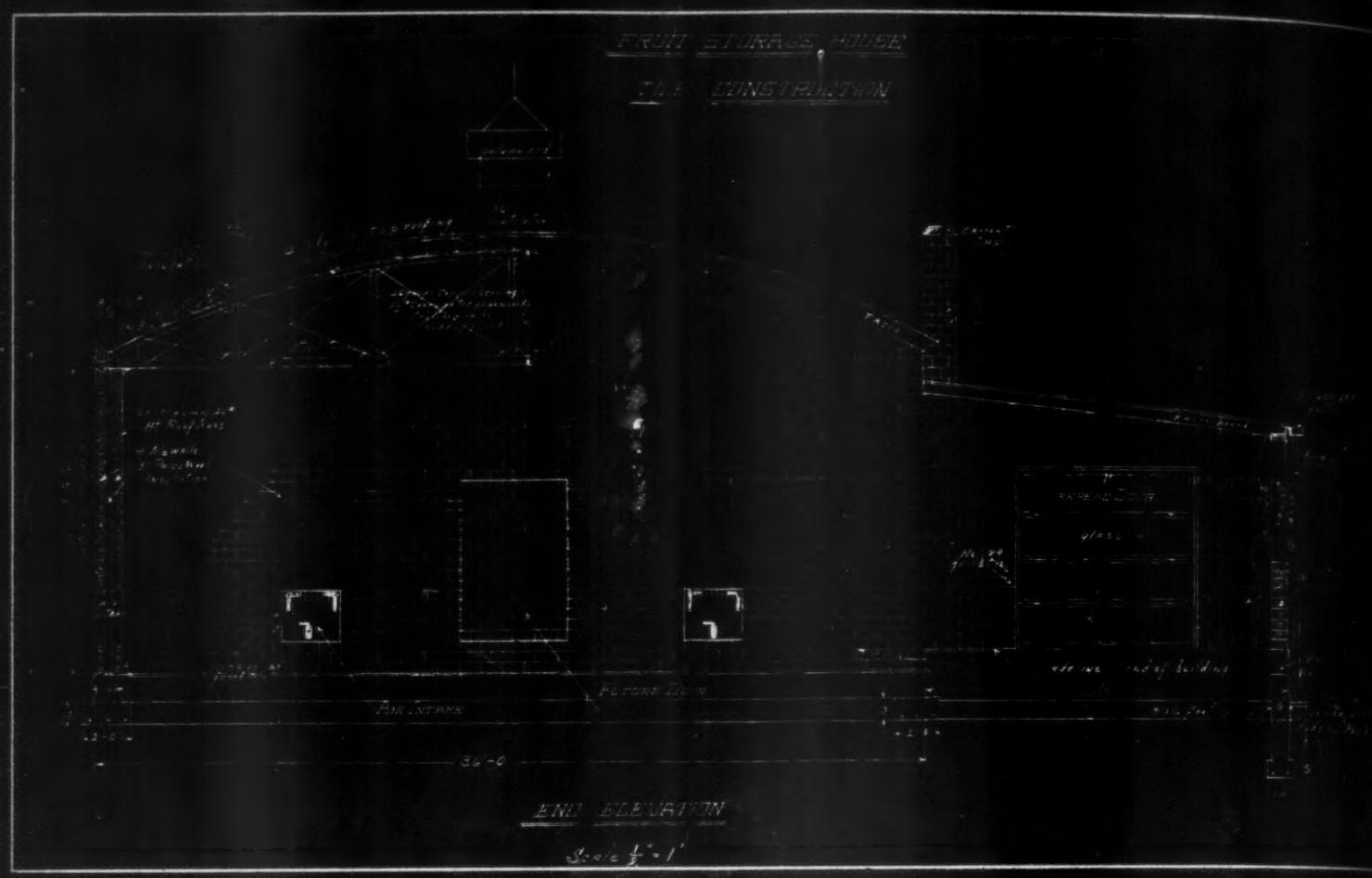
If the fruit grower can adequately support the financial load of building a storage, benefits will be numerous. If he has been storing his fruit in commercial storages, he no longer will have to pay relatively high rates to commercial operators. Figures show that it costs the grower 5 to 15 cents per bushel to operate his own storage while he must pay 15 to

25 cents per bushel of fruit for commercial storage.

By having his own cold storage, the grower who formerly found it too expensive to put fruit in commercial storages and thus was forced to sell at the first price offered will be able to keep his apples until prices are at a profitable peak.

An important benefit to those who sell at the orchard is the help a storage gives in roadside marketing. It is almost impossible to sell the high-quality fruit demanded for successful roadside marketing without a cold storage on the farm, especially in the spring.

With a rapidly growing consumer taboo on bruised and battered apples which have been injured in ordinary commercial handling, growers are realizing that they must store, package, and market their own fruit. They are accomplishing this by establishing their own cold storage on the farm and effectively controlling their own marketing programs.



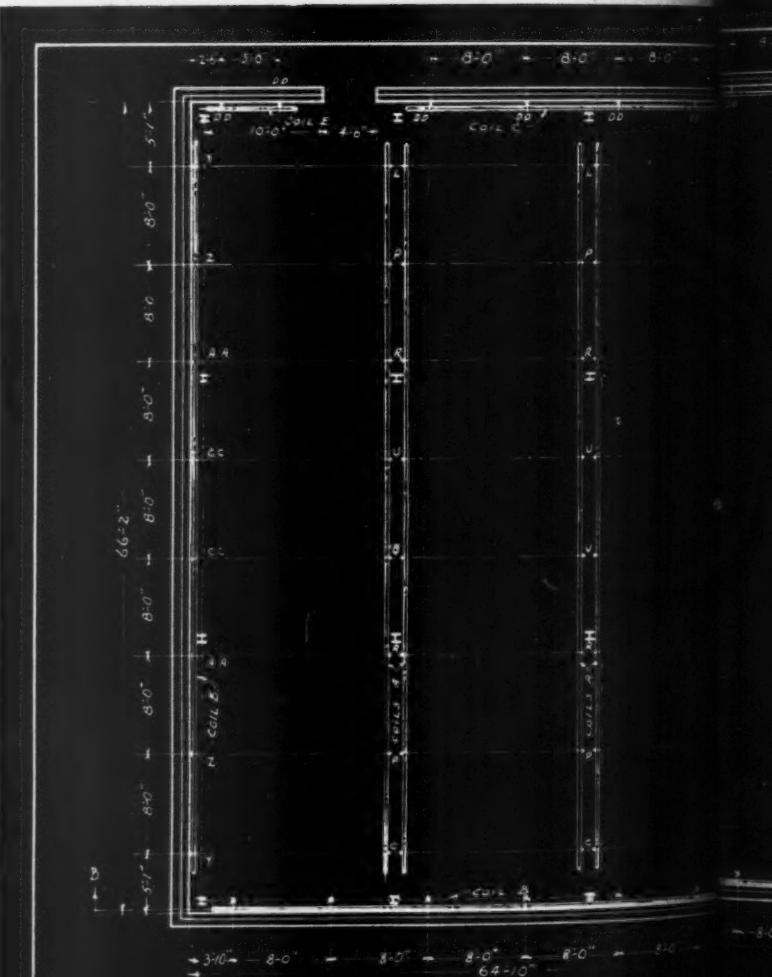
HERE ARE THREE TYPES AND SIZES OF SPR

COMBINATION STORAGE IS ONE SOLUTION

Above is the end elevation of a 10,000-bushel fruit storage erected in Michigan having a 16 by 60-foot packing room of double hollow tile wall construction with insulation between the two walls. Floor, walls, and roof of this building are designed for refrigerated storage as proper vapor-proofing is provided on the exterior walls. The storage was designed to have a 3600-bushel capacity refrigerated section and a 6400-bushel capacity air-cooled section. With this combination, the grower can use his refrigerated portion for long carry-over and the air-cooled portion for short carry-over. As he finds it possible, he eventually can refrigerate the entire plant. Plans for this storage were designed by the Kalamazoo Tank & Silo Company, Kalamazoo, Mich.

* * *

To the upper right is the end elevation of a 7000-bushel capacity air-cooled fruit storage. This storage was built by an Ohio grower who can refrigerate his common storage by properly vapor-proofing and insulating all walls and floors and installing refrigerating units. Important features of this storage are the large amount of floor area for handling fruit and the large storage space for crates on the second floor. Blueprints for this storage were produced by the Department of Agricultural Engineering, Ohio State University, Columbus, Ohio.

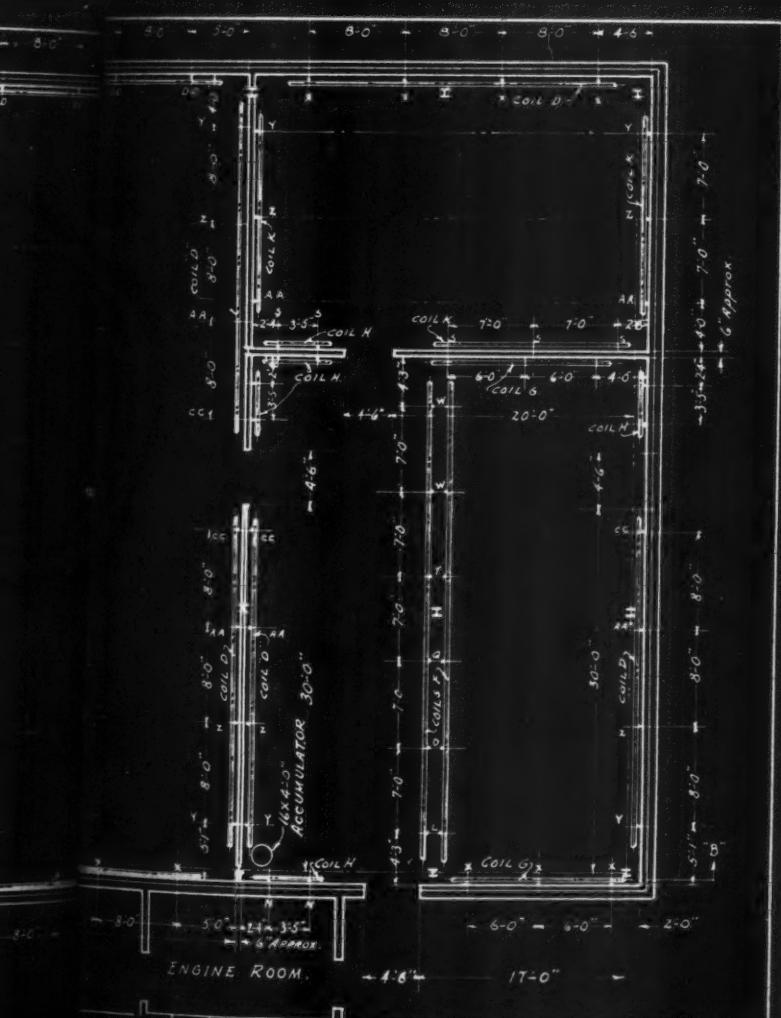




OF STORAGES TO HELP YOU IN YOUR PLANNING

PACKAGING, PROCESSING SPACE PROVIDED

To the left is a 27,000-bushel capacity cold storage constructed at Shepherdstown, W. Va. This floor plan provides room for packing operations and for processing of fruit, making it ideal for the grower who plans to produce his own by-products such as apple juice or cider. With such a setup by-product stock can be held in the storage until needed for processing. The plant is cooled by 4200 feet of two-inch pipe connected to a compressor driven by a 15 horsepower motor. Plans are printed through the courtesy of the Frick Company, Waynesboro, Pa.



WE CAN HELP YOU

The plans for fruit farm storages reproduced on this page have been designed specially to fulfill the needs of certain growers. Since types of storages will differ for each grower, readers are urged to write to the Cold Storage Editor, AMERICAN FRUIT GROWER, 1370 Ontario St., Cleveland, Ohio, for advice on plans for building. When writing, please tell the size desired. The Cold Storage Editor will furnish you with helpful information which will save both time and money.

STATE NEWS

ARKANSAS—Over 300 acres of strawberries were harvested this spring in Searcy County, northwestern Arkansas. The quality of the berries was unusually good. Among the most progressive growers in the county are Uriah Stills, W. G. Ragland, H. B. Brown, G. F. Hall, Arthur Garrison, Alfred Freeman, Vernon Cypert, and J. O. Johnson.

Increased use of commercial fertilizer is believed by most farmers to be responsible for the improved yield and quality of the berries in that locality. On one farm a part of the berries were on fertilized land and the remainder on unfertilized land. The difference was noticeable even in the coloring of the fruit.

"As a rule, powdered fertilizer will show much better results than granular fertilizer," explained one grower. "I think the berries grown on land treated with granular fertilizer will show as good coloring as the other but the fruit will fail to withstand drought and severe winters as well, so the increase in yield and berry size will not be quite so noticeable."

Last year the crop in this county was cut by winterkilling but a normal crop was obtained this year, more than 100 crates per acre not being uncommon. County Agent C. W. Bedell is a great booster for the berry people and is always on the alert for any new developments which can be adapted to his county.—DAVID I. DAY.

CONNECTICUT—High temperatures during April brought apples into full bloom about two weeks early. Most of the State had excellent weather for bees to work during the blossom period. McIntosh bloom was heavy, Baldwins light, and other varieties fair to good. Frost injury on May 3 was limited to low areas and the apparent total crop loss was slight. Rainfall from January 1 to April 30 was 35 per cent below normal. Heavy rains on May 8, 9 and 10 relieved the drought.

The 1940 commercial orchard survey for Connecticut shows 28 per cent of all apple trees under bearing age. McIntosh leads the list of varieties with 37 per cent in the non-bearing class. Only three per cent of all apple trees reported were over 40 years old. The estimated apple production for 1950 is about 10 per cent greater than the 1940 crop. The probable increase for McIntosh is about 35 per cent and the probable decrease in Baldwins over the next 10-year period is about 25 per cent. The present commercial production in Connecticut is about 400,000 bushels of McIntosh and about 375,000 bushels of Baldwins.

The Bureau of Markets of the Connecticut Department of Agriculture announces the adoption of a new grade for apples in the "cull" class. The new grade, to be called "Connecticut Cooker Grade," was adopted at a public hearing on April 10, after considerable study by a special committee of growers and after approval by the executive committee of the Connecticut Pomological Society. It is hoped that this additional grade will help solve the present cull apple problem, allowing the sale of the best cull fruit as fresh fruit, and ruling out apples unfit for consumption.

Fruit Day of Farm and Home Week at the University of Connecticut will be held on July 30. The Connecticut Pomological Society and the New York and New England Apple Institute are co-operating.—H. A. ROLLINS.

PAGE 16

MASSACHUSETTS—To combat all spraying problems in the Nashoba Valley many growers have looked for some way of keeping well informed about the latest insect and disease control and the proper time to apply the sprays. Twilight meetings have done more than anything else to give this service.

Once a week during spring and early summer the growers attend these twilight meetings which are held at one of the orchards in the district. The meetings are arranged for by the Extension Service or the different fruit growers' associations. The first meeting may be held at the large Rice Orchards in the south end of the district, the next one at a small grower in the middle of the valley, etc. The meetings start at seven o'clock before it gets dark and from seven to eight o'clock growers walk through the orchard observing all labor-saving devices, methods of spraying, pruning, fertilizing, thinning, etc. About eight o'clock the group heads for the packing shed where a speaker such as the county agent, college extension pathologist, or college horticulturist discusses the latest information on scab development, apple mag-

got emergence, crop outlook, or advertising laws.

The attendance at these meetings has been excellent, ranging from 20 to 125 growers. The growers feel that this type of meeting does not cut into their day's work and it gives them a chance to find what spray program they should use from one week to another. Another rule, that is quite closely followed, is to close promptly at nine o'clock as a late meeting discourages attendance at the next meeting. Sometimes refreshments are served such as cider and doughnuts.

The statement often is made that New Englanders are very individualistic. However, once you attend one of these meetings or find the growers getting together to put on the great Nashoba Apple Blossom Festival where they have 300,000 people coming out to look at their orchards and the 25 queens, you must change your mind.—E. L. AGNEW.

FLORIDA—The Florida Citrus Commission, Lakeland, in an eight-page mailing is pushing nationally advertised canned Florida citrus products. Products offered to the public are: grapefruit sections, grapefruit juice, citrus salad, blended orange and grapefruit juice, and orange juice.

Sales helps include: Four-color counter cards, two-can die cut counter cards, full-color single can die cut counter cards, can-top price cards, four-color wall strips, grapefruit pennant and poster, health and recipe booklets, and a full-color grapefruit sections counter card.

CALIFORNIA—An estimated total of 303,266,000 orange advertisements will appear in American and Canadian newspapers and magazines as a part of the 1941 Valencia advertising campaign planned by the California Fruit Growers Exchange.

In addition to advertising in 256 daily papers in 185 cities, 2606 weekly papers throughout the United States will be used to stimulate Valencia sales in small towns.

Advertising Manager Russell Z. Eller has pointed out that the greatest Valencia advertising campaign in the history of the co-operative is made possible by the seven cent per packed box assessment covering shipments which may exceed last year's record crop of this variety.

The Sunkist dealer service staff has been increased to 60 trained men compared to 55 last summer and 38 in 1939. The centers of dense population, particularly those with large defense industry payrolls, will be covered more intensively and dealer service activity will be extended to more of the outlying communities.

Following up the "Best For Juice and Every Use" slogan which proved so effective in 1940, exchange advertising will continue to emphasize the health value of California oranges. The campaign will continue to stress vitamins, particularly Vitamin C of which California oranges are a good source.

Canned juices, especially citrus juices, are expected to furnish strong competition. Last year's national pack of canned citrus juices was nearly fifteen million cases compared to less than nine million in 1937.

"Canned citrus juices compete directly with fresh oranges and will be offered to the public at bargain prices by many retailers," said Eller. "Valencia advertising must stress the finer flavor and greater health value of fresh oranges of dependable quality."

JUNE, 1941

National Apple Institute's annual meeting will be at the Deshler-Wallack Hotel, Columbus, Ohio, June 16-19.

The meeting will consist mainly of open discussion without headline speakers to determine how the apple crop will be handled next fall. Discussions will be led by authori-

(Continued on page 18)

AMERICAN FRUIT GROWER

MARKETING

SPRUCE UP TO BUILD UP SALES

"**N**OTHING succeeds like success," says Ernest R. Clark of Spencerport, N. Y., whose roadside market has grown steadily every year and now is about to receive new improvements. Under the direction of son Gareth Clark, who operates the orchard and market jointly with his father, the roadside store will be streamlined and modernized.

As the first improvement, the father and son combination plan to landscape the grounds around the building. The



idea behind this is to beautify the property so it will make a pleasing appearance to prospective customers.

The Clarks make their own apple juice at the orchard and have found a ready demand for it. To facilitate further sales of the juice, they plan to build a fruit juice bar in one corner of the store and to employ an attractive salesgirl to wait on customers. At the bar only fresh, chilled fruit juice will be served.

In the basement below the store is an air-cooled storage. The younger Clark plans to build several controlled atmosphere storage lockers in this space for the McIntosh apples. He also intends to construct a small lift so that apples may be brought from the storage in the basement to the market upstairs with no trouble or delay. "Straight from the storage to you," will provide an effective advertising slogan.

State authorities plan to widen Ridge Road some day to a four-lane superhighway. When they do, the Clarks will have a larger parking space. They intend to pave it with concrete, making an easily accessible, smooth, dust-free area in which motorists will have no difficulty parking.

JUNE, 1941



To attract additional motorists, the Clarks plan this year to landscape the grounds surrounding their market.

Interior view of the roadside market showing neatly arranged rows of apples packed in bushel and corrugated baskets. Price tags are included.

The Clarks are looking ahead to a better roadside store, and they will be a pair of greatly surprised merchandisers if sales do not keep pace with the improvements they are planning.

BERRY GROWERS MAY use the hallock-type berry box for this year's crop, it was announced definitely by the Food and Drug Administration which earlier in the season prohibited the use of these boxes after receiving complaints that these containers were deceptive because of raised bottoms. Fifty per cent of interstate shipment in Minnesota would have been affected seriously if this prohibition had not been rescinded. Growers and shippers who were affected by the earlier order, because their year's supply already was purchased, now can move their crops to market. Loss of thousands of dollars in berry boxes and severe losses to growers because of their inability to secure other types of boxes would have occurred if the hallock-type boxes had been prohibited this year.

WASHINGTON STATE Apple Advertising Commission, which now receives a

doubled advertising revenue from growers, gave the sale of Winesaps a boost by a national radio advertising campaign last month. Twenty-five to 50 one-minute spot broadcasts in 14 key cities did the trick for the sale which was held back by unseasonably warm weather.

THE GEORGIA ASSOCIATION of Peach Growers, including growers of the Carolinas, has announced the largest advertising and merchandising campaign in its history for 1941. Newspaper advertising and display material will be the prime features of the campaign. The account, which was resigned recently by the advertising agency, Brooke, Smith, French and Dorrance, will be handled direct.

PRUNE INSTITUTE of America has announced the formation of a new dried fruit packing firm which has pledged to pack and market only the crop of the current year and will not be burdened with fruit carried over from crops of previous years. This means "dated prunes" for consumers.

PAGE 17

Is a "MUST" on any Spray Schedule



Stops pre-harvest drop, allows fruit to color better, increases profits.

MORE BUSHELS—BETTER COLOR

Figure it out for yourself! It costs from 10c to 30c per tree—depending on size—to spray with FRUITONE. Look at the table below for increased yields per 10 year old tree from FRUITONE application. The answer is simple—it would cost you a lot of money *not* to spray with FRUITONE.

Williams Red	7.8 bushels more	McIntosh	2.9 bushels more
Red Duchess	4.9 bushels more	Stayman	4.0 bushels more
Early McIntosh	7.8 bushels more	York Imperial	2.6 bushels more
King David	4.2 bushels more	Rome Beauty	4.9 bushels more
Delicious	6.4 bushels more	Wealthy or Jonathan	would produce 3 to 4 bushels more

Increased quality. Apples that stay on the tree to maturity have better size and color. One New England grower reports 81% Fancy pack from his FRUITONE sprayed apples.

FRUITONE is the pioneer harvest hormone spray—the only one with two seasons' experience in back of it. Successful in every part of the country, as shown by reports from Experiment Stations and growers from Mississippi to Maine, from Virginia to Washington.

FRUITONE REALLY WORKS!

COSTS FROM 1 to 1½c PER BUSHEL

Simply mix FRUITONE Powder in your spray tank at the rate of ½ lb. to 100 gallons of water. A single application made 10-14 days before picking time will control pre-harvest drop except with McIntosh.

Write us for descriptive booklet. Address Dept. 91

AMERICAN CHEMICAL PAINT COMPANY
Ambler, Pa.

NATIONWIDE NEWS

(Continued from page 16)

ties in different fields of apple marketing. A partial list of those who will attend includes Porter R. Taylor and Dr. L. M. Wilson of the U.S.D.A.; C. E. Chase and Reuben Benz from the Washington State Apple Advertising Commission; J. J. Willaman and H. H. Mattern of the Federal Research Laboratory at Philadelphia.

▲ ▲ ▲

The Ohio apple advertising bill, after being passed by the Senate earlier in the year, was held in Committee and never brought to the House floor. The session ended without passage of the bill. The Ohio Apple Institute immediately scheduled a meeting to decide what to do about advertising this year's crop.

Latest report on the efforts of Missouri growers to establish an apple advertising law shows that slow progress is being made in Legislature. It was thought that New York growers might attempt similar action but nothing definite has been done in this State so far. The Michigan State Apple Commission will advertise this season's crop for the first time since 1939 by means of a revenue of one cent a bushel from growers.

▲ ▲ ▲

Fruit and nut crops for the coming season will be plentiful, reports the U.S.D.A., because trees and fruit buds which were damaged by freezes and excessive rainfall were only in a few areas.

Peach production in the 10 early southern states promises to be the largest since 1931. Prospects for pears are somewhat variable. Pear and grape production in the Pacific Coast states is expected to be about average while somewhat less than an average crop of grapes is expected in the eastern areas.

Sour cherries in most eastern sections should be favorable. Lighter crops are expected in the western states though prospects for sweet cherries in the western area are more favorable than they are in the eastern sections. California plum production is expected to be about average. Prospects for fresh prunes in the Northwest are still indefinite but conditions on May 1 indicated that production probably will be smaller than last season though the dried prunes in the Pacific Coast states are expected to be more plentiful than last season.

Good-sized crops of apples are expected although it is too early for definite indications. April weather was favorable and no serious damage to trees or buds was reported.

THE SUPERIORITY

of

FRUITONE

as a pre-harvest drop spray

is a matter of actual record in many of the largest orchards in all sections of the country.

It is safe, economical and proven for all commercial varieties under all usual growing conditions.

Play safe! Order your supply of FRUITONE now.



DISTRIBUTED BY

CALIFORNIA SPRAY-CHEMICAL CORPORATION
"The ORTHO Company"
Elizabeth, N. J.

BUYER'S GUIDE FOR THE FRUIT FARM

CLASSIFIED INDEX

A	Accessories—Spray	21	Electrocuters—Insect	21	Magnesium Sulphate	30	Shoels—Box	43
	Acetylene Exploder	20	Emulsions	28	Manganese Sulphate	30	Shredded Paper	45
	Agricultural Lime	30	Engines	23, 34	Marketing Agencies	37	Sizers	42
	Air Scrubbers	40	Ethylene Dichloride	21, 27	Masks	22	Sizing Rings	42
	Ammonium Phosphate	30	Ethylene Ripening Outfits	21	Molting Pots	32	Skin Protectives	22
	Ammonium Sulphate	30	Exocel	44	Mesh Fabric—Soil Retention	30	Slicers	45
	Arsenicals of Calcium	27	Exploder—Acetylene	20	Miscible Oils	28	Small Fruits	33
	Arsenicals of Lead	27	Explosives	35	Mixed Fertilizers—Commercial	30	Soaps	29
	Arsenicals of Zinc	27	Extractors—Juice	45	Mixers—Dust	20	Sodium Benzoate	45
	Augers—Pest Hole	34			Monohydrated Copper Sulphate Dusts	20	Sodium Nitrate	30
B					Motor Trucks	26	Soil Management	30
	Bags—Cloth, Open Mesh, Paper	43	Face Shields	22	Motors—Electric	34, 40, 42	Soil Testing Outfits	30
	Bags—Picking	39	Facers—Basket, Box	45	Motors—Gasoline	23	Sorters—Ferry	42
	Bands—Tree	20	Facing Stands	40	Mowers	35	Sorling Tables—Fruit	42
	Bark Scrapers	35	Farm	34			Sowers—Hand Seed	36
	Basin Lists	35	Fertilizer Distributors	35			Sowers—Rubber Sheeting	43
	Basket Facers	42	Field Crates	30	Nailing Machinery	42	Spray Accessories	21
	Basket Plasses	42	Fillers—Dust	20	Naphthalene Acetamide	31	Spray Clothing	21
	Basket Turners	43	Filling Machinery—Bottle	45	Naphthalene Acetic Acid	20	Spray Hose Fittings	22
	Baskets—Corrugated, Fiberboard, Paper	39	Firarms	21	Nicotine Dusts	20	Spray Protection	22
	beard, Wood	39	Fittings—Hose	22	Nicotine Sulphate	45	Sprayer Equipment	23
	Baskets—Picking	39	Fittings—Pipe	38	Nitrate of Potash	30	Sprayers—Hand Power, Stationery	
	Beverages	23	Fixed Nitrate	27	Nitrate of Soda	22	Traction	26
	Benting	42	Fluorine Compounds	27	Nozzles	21	Spraying Equipment	21-26
	Benzene of Soda	45	Fluorine Dusts	20	Nursery Stock	33	Spraying Material	27-29
	Berry Boxes, Crates	43	Forms—Box, Packing	42			Spreader	29
	Berry Sorters	42	Fringes	44	N		Sprinkler Systems	38
	Beta Naphthal	20	Frost Alarm Indicators	34	Nailing Machinery	42	Stamping Inks	45
	Biomial Bearing Sprays	34	Frost Protection	27	Naphthalene Acetamide	39	Stamping Pads	45
	Blowers	40	Fruit Processing	45	Naphthalene Acetic Acid	39	Stamps—Rubber	45
	Borax	30	Fruit Trees	33	Nicotine Dusts	20	Stands—Facing	43
	Bordeaux Mixture	27	Fruit Trees—Dwarf	33	Nicotine Sulphate	45	Staplers	43
	Bottle Filling Machinery	45			Nitrate of Potash	30	Staples	43
	Box Facers	42	G		Nitrate of Soda	22	Stationary Spray Systems	26
	Box Forms	42	Garden Tractors	37	Oil Emulsion	28	Stencils	45
	Box Making Machinery	42	Gas Analysis Apparatus	40	Oil—Spray	28	Sterilizers	45
	Box Presses	42	Gasoline Motors	23	Open Mesh Bags	43	Stickers	29
	Box Shocks	43	Gates	23	P		Storage	40-41
	Boxes—Berry, Corrugated, Fiberboard, Paperboard, Wirebound	43	Gauges—Pressure	44	Packaging Materials	43-44	Straps—Picking	39
	Boxes—Wood	44	Glassware	32	Packing Forms	43-45	Stump Pullers	36
	Brasers—Tree	32	Glutin	21	Packing House Equipment	42-43	Sulphate of Ammonia	30
	Brooms—Spray	20	Graders	20	Packing Tables	42	Sulphur	30
	Brush Burners	20	Grafting Compounds	32	Pads—Stamping	44	Sulphur Dioxide	45
	Brush Cutters	20	Grafting Equipment	32	Paper—Shredded	47	Sulphur Dusts	20
	Brush Rakes	35	Grape Vines	33	Paradichlorobenzine	26	Sulphur Fumigants	29
	Buckets—Picking	39	Graters	45	Parers—Apple	45	Sulphur Gas	30
	Budding Strips	40	Grinders—Fruit	45	Paris Green	45	Sulphur Heaters	20
	Building Papers	41	Grove Tractors	37	Plasticizing Outfits	32	Sulphur Oils	28
	Building Tile		Growth Stimulating Chemicals	32	Phosphate of Ammonia	30	Superphosphate	30
C			Gypsum	30	P		T	
	Calcium Arsenate	27			Packaging Materials	43-44	Tables—Packing	42
	Calcium Chloride	20			Packing Forms	43-45	Tables—Sorting Fruit	42
	Calcium Cyanamide	30			Packing House Equipment	42-43	Tank Fillers	23
	Calcium Nitrate	30			Packing Tables	42	Tanks	23
	Caps—Corrugated	43			Pads—Stamping	44	Tape—Grafting	32
	Carbons—Consumer	44			Paper	45	Tar Emulsions	28
	Cellophane	36			Pickling Equipment	39	Testing Outfits—Soil	30
	Chains—Tractor	36			Pickling Ladders	39	Thermometers	41
	Chains—Truck	28			Pickling Straps	39	Thermostats	41
	Chemicals—Growth Stimulating	32			Pipe	36	Tile Building	41
	Chemicals—Weed Killer	32			Pipe Fittings	35	Tillage Equipment	35-37
	Clarifying Agents	45			Pipe—Portable Irrigation	35	Tillers—Rotary	36
	Cleaners—Fruit	42			Plows—Disk, Moldboard	38	Tires—Pneumatic	25-30
	Clippers—Fruit	39			Pneumatic Tires	23	Torches—Lighting	34
	Cloth Bags	43			Poisons—Rodent	21	Torches—Wood Killer	21
	Clothing—Spray	21			Polyishers—Fruit	42	Tractor Chains	37
	Clouds—Fruit	45			Pots	42	Tractors—Continuous Tread	37
	Commercial Mixed Fertilizers	39			Potash Salts	38	Tractors—Garden	37
	Commercial Merchants	37			Potassium Nitrate	38	Tractors—Orchard and Grove	37
	Consumer Packages	44			Press Cloths	30	Tractors—Wheel	37
	Containers	43-44			Presses—Basket, Box	45	Tree Bands	20
	Continuous Tread Tractors	37			Presses—Fruit	40	Tree Bracers	32
	Controlled Atmosphere Storage	40			Pressure Cookers	45	Tree Healing Compounds	21
	Conveyors	42			Pressure Gauges	21	Tree Protectors	31
	Cookers	45			Propagating Materials	32	Trellises	34
	Cookers—Apple Butter	45			Protectives—Skin	22	Tri-Basic Copper Sulphate Dusts	28
	Copper Compounds	27			Pruners	32	Truck Chains	26
	Copper Sulphate	27			Pruning Equipment	32	Trucks—Lift	42
	Couplings—Pipe	27			Pulvers	32	Trucks—Motor	26
	Crates—Berry, Corrugated	38			Pumps	38, 45	Trucks—Warehouse	43
	Crates—Field, Picking	43			Pyrethrum and Derivatives	28	Turners—Basket	43
	Crates—Wood	44			Pyrethrum Dusts	20		
	Crushers—Fruit	45					U	
	Cryolite	27					Urea	30
	Cultivators	35						
	Cushions	44					V	
D							Valves	38
	Diffusers	40					Vats—Cooking	45
	Digester—Pot Hole	34					Ventilators	41
	Dinitro Compounds	27					Vinegar Equipment	45
	Dinitro Control	20-29						
	Distributors—Fertilizer	35					W	
	Dithers	36					Warehouses, Trucks	43
	Doors—Storage	40					Washers—Fruit	43
	Dermant Oils	28					Washing Compounds—Fruit	43
	Drainage Equipment	32					Waterproofing Compounds	41
	Dressings—Wound	32					Wax	32, 43
	Drills—Seed	35					Wax Emulsion	32
	Dry Lime Sulphur	29					Wax Grafting	32
	Ducts—Air	40					Weld Burners, Torches	21
	Dust Fillers	20					Wettable Sulphur	29
	Dust Mixers	20					Wheel Tractors	37
	Dusters—Hand, Power	20					Wind Machines	34
	Dusting Equipment	20					Wire	34
	Dusting Materials	20					Wound Dressings	32
	Dwarf Fruit Trees	33					Wrappers—Metal Foil, Oiled, Plain, Transparent	45
E							Z	
	Electric Plants	38					Zinc Arsenite	27
	Electric Screens—Insect	42					Zinc Sulphate	29
			Machinery Refrigeration	40				
			Magnesium Arsenate	42				

INSECT AND DISEASE CONTROL

DUSTING EQUIPMENT

Dusters

HAND

John Bean Mfg. Co., Lansing, Mich.
E. C. Brown Co., Rochester, N.Y.
Dobbins Mfg. Co., Elkhart, Ind.
A. B. Farquhar Co., Ltd., York, Pa.
H. D. Hudson Mfg. Co., Chicago, Ill.
Lake Erie Steel & Blanking Co., Cleveland, Ohio
Los Angeles Chemical Co., Los Angeles, Calif.
Messinger Mfg. Co., Tatamy, Pa.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Nico-Dust Mfg. Co., Los Angeles, Calif.
Root Mfg. Co., Cleveland, Ohio
D. B. Smith & Co., Utica, N.Y.
Stauffer Chemical Co., New York, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

POWER

Agicide Laboratories, Inc., Milwaukee, Wis.
American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
John Bean Mfg. Co., Lansing, Mich.
A. B. Farquhar Co., Ltd., York, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Master Fan Corp., Los Angeles, Calif.
Messinger Mfg. Co., Tatamy, Pa.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Root Mfg. Co., Cleveland, Ohio
Shunk Mfg. Co., Bucyrus, Ohio
Edwin C. Tyson, Flora Dale, Pa.

Mixers, Dust

Agicide Laboratories, Inc., Milwaukee, Wis.
"Friend" Mfg. Co., Gasport, N.Y.
Lake Erie Steel & Blanking Co., Cleveland, Ohio
Messinger Mfg. Co., Tatamy, Pa.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Root Mfg. Co., Cleveland, Ohio
Shunk Mfg. Co., Bucyrus, Ohio

DUSTER News

Leading orchardists throughout the country are recognizing more each year the importance of supplementing their spray schedule with an efficient orchard duster. The new improved 1941 Root 5 H.P. Model is recognized as the leader in this type of equipment and is very popular throughout the country this year.

For complete information write the
Root Manufacturing Company
1311 W. 30th Street
Cleveland, Ohio

DUSTING MATERIALS

Dust Fillers

Agicide Laboratories, Inc., Milwaukee, Wis.
American Lime & Stone Co., Bellefonte, Pa.
Calcium Carbonate Co., Chicago, Ill.
France Stone Co., Toledo, Ohio
Gibsonburg Lime Products Co., Gibsonburg, Ohio
Ohio Hydrate & Supply Co., Woodville, Ohio
United States Gypsum Co., Chicago, Ill.
Woodville Lime Products Co., Toledo, Ohio

Fluorine Dusts

Aluminum Ore Co., Pittsburgh, Pa.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Stauffer Chemical Co., New York, N.Y.

Lime

Aluminum Ore Co., Pittsburgh, Pa.
American Lime & Stone Co., Bellefonte, Pa.
France Stone Co., Toledo, Ohio
Gibsonburg Lime Products Co., Gibsonburg, Ohio
Kimballton Lime Co., Inc., Shawsville, Va.
Marble Cliff Quarries Co., Columbus, Ohio
Ohio Hydrate & Supply Co., Woodville, Ohio
Scioto Lime & Stone Co., Delaware, Ohio
Tennessee Corp., Lockland, Ohio
United States Gypsum Co., Chicago, Ill.
Woodville Lime Products Co., Toledo, Ohio

Monohydrated Copper Sulphate Dusts
Ansabacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.

Interstate Chemical Mfg. Co., Reading, Pa.
McCormick & Co., Inc., Baltimore, Md.
Mechling Bros. Chemical Co., Camden, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Phelps Dodge Refining Corp., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
J. W. Woolfolk Co., Ft. Valley, Ga.

Nicotine Dusts

Ansabacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Koppers Co., Tar and Chemical Div., Pittsburgh, Pa.
John Lucas Co., Philadelphia, Pa.
McCormick & Co., Inc., Baltimore, Md.
Mechling Bros. Chemical Co., Camden, N.J.
Merrimac Chemical Co., Everett, Mass.
Micronizer Processing Co., Inc., Moorestown, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
National Sulphur Co., Inc., New York, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
South Haven Chemical Co., South Haven, Mich.
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Pyrethrum Dusts

Ansabacher-Siegle Corp., Brooklyn, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
General Chemical Co., New York, N.Y.
Kalo Co., Quincy, Ill.
Kay-Fries Chemicals, Inc., New York, N.Y.
McCormick & Co., Inc., Baltimore, Md.
McLaughlin Gormley King Co., Inc., Minneapolis, Minn.
Mechling Bros. Chemical Co., Camden, N.J.
Micronizer Processing Co., Inc., Moorestown, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
S. B. Penick & Co., New York, N.Y.
B. G. Pratt Co., New York, N.Y.
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Rotenone Dusts

Agicide Laboratories, Inc., Milwaukee, Wis.
Ansabacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
John Lucas Co., Philadelphia, Pa.
McCormick & Co., Inc., Baltimore, Md.
Mechling Bros. Chemical Co., Camden, N.J.
Micronizer Processing Co., Inc., Moorestown, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
National Sulphur Co., Inc., New York, N.Y.
Naugatuck Chemical Div., United States Rubber Co., New York, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
S. B. Penick & Co., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

AGICIDE
TRADE MARK
AGRICULTURAL INSECTICIDE

CREAM OF AGICIDE

Will control most insects that attack your crops. Yet it will not, in any concentration, burn, discolor, or injure the most delicate buds or blossoms, fruits, flowers or foliage.

Nor will it harm cattle who may lick foliage so treated, or who may graze in orchards sprayed with Cream of Agicide.

For name of nearest distributor of

CREAM OF AGICIDE and DUST OF AGICIDE

write

AGICIDE LABORATORIES
INC.

Milwaukee, Wis. Los Angeles, Cal.
AMERICAN FRUIT GROWER

Sulphur Dusts

Ansabacher-Siegle Corp., Brooklyn, N.Y.
Battelle & Renwick, New York, N.Y.
Bowker Chemical Co., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Koppers Co., Tar and Chemical Div., Pittsburgh, Pa.
John Lucas Co., Philadelphia, Pa.
McCormick & Co., Inc., Baltimore, Md.
Mechling Bros. Chemical Co., Camden, N.J.
Merrimac Chemical Co., Everett, Mass.
Micronizer Processing Co., Inc., Moorestown, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
National Sulphur Co., Inc., New York, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
South Haven Chemical Co., South Haven, Mich.
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Tri-Basic Copper Sulphate Dusts

General Chemical Co., New York, N.Y.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Sherwin-Williams Co., Cleveland, Ohio
Tennessee Corp., Atlanta, Ga.

ORCHARD SANITATION

Acetylene Exploder

Salt Lake Stamp Co., Salt Lake City, Utah

FRIGHTEN THE BIRDS

Why take staggering losses year after year from bird-feeders in your fruit plantings? Humanely rid your orchard, grove or small fruit patch of crop-destroying birds with our exploder that NEVER "falls asleep." Load birds with terror and bring back the natural spell terror to birds and foliage-destroying animals. Order now. Protect valuable crops with—

THE AUTOMATIC EXPLODER
SALT LAKE STAMP CO.
43 W. Broadway, Salt Lake City, Utah

Bands, Tree

John Bacon Inc., Gasport, N.Y.
Bemis Bro. Bag Co., St. Louis, Mo.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Hinde & Dauch Paper Co., Sandusky, Ohio
Edwin H. House, Saugatuck, Mich.
M. H. Hunt & Son, Lansing, Mich.
M. A. Koeller, Barry, Ill.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Owens-Illinois Glass Co., Toledo, Ohio
F. A. Read, Inc., Winchester, Va.
Rice, Trew & Rice Co., Bigerville, Pa.
Tanglefoot Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.

Beta Naphthol

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
Braun-Knecht-Heimann-Co., San Francisco, Calif.
Sherwin-Williams Co., Cleveland, Ohio

Brush Burners

Aeroil Burner Co., Inc., West New York, N.J.
E. C. Brown Co., Rochester, N.Y.
Dobbins Mfg. Co., Elkhart, Ind.
Hauck Mfg. Co., Brooklyn, N.Y.
Ker-O-Kil Mfg. Co., San Francisco, Calif.

Brush Cutters

E. C. Atkins & Co., Indianapolis, Ind.
Bartlett Mfg. Co., Detroit, Mich.
Killefer Mfg. Corp., Ltd., Los Angeles, Calif.
A. M. Leonard & Son, Piqua, Ohio
Mitts & Merrill, E. Saginaw, Mich.
Seymour Smith & Son, Inc., Oakville, Conn.
Carroll R. Tiffany, Conklin, N.Y.
J. Wiss & Sons Co., Newark, N.J.

Calcium Chloride

American Cyanamid & Chemical Corp., New York, N.Y.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Harshaw Chemical Co., Cleveland, Ohio
Merck & Co., Inc., Rahway, N.J.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Solvay Sales Corp., New York, N.Y.
Stauffer Chemical Co., New York, N.Y.
Texas Co., New York, N.Y.

INSECT AND DISEASE CONTROL

Ethylene Dichloride

Carbide & Carbon Chemicals Corp., New York, N.Y.
Fred Durand, Woodbury, Ga.
General Chemical Co., New York, N.Y.
McKenzie Chemical Co., Montezuma, Ga.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
G. S. Robins Co., St. Louis, Mo.
J. W. Woolfolk Co., Ft. Valley, Ga.

Glutrin

Robeson Process Co., New York, N.Y.

Insect Barriers

California Spray-Chemical Corp., Richmond, Calif.
Interstate Chemical Mfg. Co., Reading, Pa.
Standard Oil Co. of Indiana, Chicago, Ill.
Tanglefoot Co., Grand Rapids, Mich.

Insect Electrocutors

Alert Electric Door Control Co., Los Angeles, Calif.
Chicago Electric Scientific Co., Chicago, Ill.
Insect Electrocutor Co., Cincinnati, Ohio
International Sales Co., Chicago, Ill.
Monolite Co., Berkeley, Calif.
Mortene Laboratories, Chicago, Ill.

Rodent Destroyers

FIREARMS
Marlin Firearms Co., New Haven, Conn.
Remington Arms Co., Inc., Bridgeport, Conn.
Savage Arms Co., New York, N.Y.
Winchester Repeating Arms Co., New Haven, Conn.

Poisons

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
Antrol Laboratories, Inc., Los Angeles, Calif.
General Chemical Co., New York, N.Y.
K-R-O Co., Springfield, Ohio
Mallinckrodt Chemical Works, St. Louis, Mo.
Rat Biscuit Co., Springfield, Ohio
Rose Rat Exterminator Co., Chicago, Ill.
D. B. Smith & Co., Inc., Utica, N.Y.

TRAPS

Animal Trap Co. of America, Lititz, Pa.
Antrol Laboratories, Inc., Los Angeles, Calif.
Michigan Wire Goods Co., Niles, Mich.

Rodent Repellents

Castle Chemical Co., Castle Rock, Minn.
Clarion Development Co., Inc., Clarion, Pa.
Hammond Paint & Chemical Co., Beacon, N.Y.
J. Livingstone, Jr., Milwaukee, Wis.
Rollin H. Tabor, Mt. Vernon, Ohio
Tanglefoot Co., Grand Rapids, Mich.

Scrapers, Bark

Bartlett Mfg. Co., Detroit, Mich.
Fruit Packing Equipment Co., Swoope, Va.
A. M. Leonard & Son, Piqua, Ohio
Carroll R. Tiffany, Conklin, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

Tree Healing Compounds

Bartlett Mfg. Co., Detroit, Mich.
Clarion Development Co., Inc., Clarion, Pa.
Flintkote Co., New York, N.Y.
Joseph A. Fraim Co., Inc., Norfolk, Va.
M. H. Hunt & Son, Lansing, Mich.
Interstate Chemical Mfg. Co., Reading, Pa.
A. M. Leonard & Son, Piqua, Ohio

Tree Protectors

Brown Fence & Wire Co., Cleveland, Ohio
Chase Bag Co., Chagrin Falls, Ohio
Kitselman Bros., Muncie, Ind.

Weed Killers

BURNERS AND TORCHES
Aeroil Burner Co., Inc., West New York, N.J.
E. C. Brown Co., Rochester, N.Y.
Dobbs Mfg. Co., Elkhart, Ind.
Hauck Mfg. Co., Brooklyn, N.Y.
Ker-O-Kill Mfg. Co., San Francisco, Calif.

CHEMICALS

California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
James Good, Inc., Philadelphia, Pa.
Harshaw Chemical Co., Cleveland, Ohio
Interstate Chemical Mfg. Co., Reading, Pa.
Mallinckrodt Chemical Works, St. Louis, Mo.
Merck & Co., Inc., Rahway, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio
Standard Agricultural Chemicals, Inc., Hoboken, N.J.
Stauffer Chemical Co., Inc., New York, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Wheeler, Reynolds & Stauffer, San Francisco, Calif.

JUNE, 1941

SPRAYING EQUIPMENT

Spray Accessories

GUNS

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
Double Twirler Spray Nozzle Corp., Red Hook, N.Y.
Eureka Mower Co., Utica, N.Y.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
W. L. Hamilton & Co., Bangor, Mich.
Hardie Mfg. Co., Hudson, Mich.
H. D. Hudson Mfg. Co., Chicago, Ill.
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.
Universal Power Sprayer Co., Inc., Plymouth, Mich.
Windmaster Spray Gun Co., Hood River, Ore.

HAMILTON

"Spray Guns that pay"

To prune and not spray efficiently
is poor business

See the New Style Hamilton Guns with Controlled Streaming
W. L. HAMILTON & CO.
BANGOR, MICHIGAN

Seven Models
A GUN FOR EVERY PURPOSE
Send for FREE Catalog

HOSE

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Boston Woven Hose & Rubber Co., Boston, Mass.
Broadway Rubber Mfg. Co., Louisville, Ky.
Campbell & Budlong Machine Works, San Jose, Calif.
Continental Rubber Works, Erie, Pa.
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
Electric Hose & Rubber Co., Wilmington, Del.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Akron, Ohio
Hardie Mfg. Co., Hudson, Mich.
A. M. Leonard & Son, Piqua, Ohio
Manhattan Rubber Mfg. Co., Passaic, N.J.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Quaker Rubber Corp., Philadelphia, Pa.
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, Ohio
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.
United States Rubber Co., New York, N.Y.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

?? SPRAY HOSE BURSTING ??

GUARANTEED HIGH-PRESSURE HOSE
ANY LENGTH—ANY PRESSURE TO 1,000 POUNDS

3/8" x 1 BRAID 21c ft. 1/2" x 1 BRAID 36c ft.
3/8" x 2 BRAID 23c ft. 3/4" x 2 BRAID 41c ft.
3/8" x 3/16" — 1/2" x 1/2" High Pressure Coupling @ \$1.25 ft.
3/4" High Pressure Coupling @ \$1.75 ft.

SAMPLE FREE
BROADWAY RUBBER MFG. CO.
Manufacturers and Importers Since 1895
529 E. BROADWAY LOUISVILLE, KENTUCKY

KILL WEEDS

HAUCK FLAME GUN

2000°F. controlled heat quickly, easily, economically destroys weeds (seeds and all), poison ivy, brush, diseased trees and other objectionable growths. Keeps roadways, fences, irrigation ditches, orchards, etc., clean. Hundred uses around orchard and farm. Burns kerosene. Inexpensive—safe—easy to use. 10 day trial. 7 popular-priced models. Write for free catalog and prices.

HAUCK MFG. CO.
161 Tenth Street
BROOKLYN, N.Y.

AMERICAN FRUIT GROWER

NOZZLES AND BROOMS

John Bean Mfg. Co., Lansing, Mich.
E. C. Brown Co., Rochester, N.Y.
Campbell-Hausfeld Co., Harrison, Ohio
Champion Corp., Hammond, Ind.
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
Double Twirler Spray Nozzle Corp., Red Hook, N.Y.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
W. L. Hamilton & Co., Bangor, Mich.
Hardie Mfg. Co., Hudson, Mich.
H. D. Hudson Mfg. Co., Chicago, Ill.
McClain Brothers Co., Canton, Ohio
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Robey Mfg. Co., East Lansing, Mich.
D. B. Smith & Co., Utica, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

PRESSURE GAUGES

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
Frick Company, Waynesboro, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
W. L. Hamilton & Co., Bangor, Mich.
Hardie Mfg. Co., Hudson, Mich.
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

RODS

John Bean Mfg. Co., Lansing, Mich.
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
Eureka Mower Co., Utica, N.Y.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
W. L. Hamilton & Co., Bangor, Mich.
Hardie Mfg. Co., Hudson, Mich.
Messmer Brass Co., St. Louis, Mo.
F. E. Myers & Bro. Co., Ashland, Ohio
D. B. Smith & Co., Utica, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

EVERYTHING FOR THE ORCHARD

SPRAYERS, DUSTERS, MATERIALS—Power and Hand Sprayers. Spray Materials and Dust Mixtures. Hand and Power Dusters. Sprayer Accessories, Guns, Rods, Nozzles, Hose. Weed Killers, Wood Preservatives, Hydrometers, Hygrometers, and Magnifiers. E-Z "C" Face Protectors. State requirements and ask for Special Literature. No General Catalog.

EDWIN C. TYSON FLORA DALE, PA.
See Ads. Pages 32, 42

FAMOUS FOR OVER 100 YEARS



Spray Clothing

Broadway Rubber Mfg. Co., Louisville, Ky.
Continental Rubber Works, Erie, Pa.
Goodall Rubber Co., Inc., Philadelphia, Pa.
Hood Rubber Co., Watertown, Mass.
Miller Rubber Co., Akron, Ohio
Minor Rubber Co., Inc., Newark, N.J.
Mishawaka Rubber & Woolen Mfg. Co., Mishawaka, Ind.
B. C. Tillinghast Rubber Co., Philadelphia, Pa.
A. J. Tower Co., Boston, Mass.

PAGE 21

"YESSIR... IT REALLY PAYS TO FIGURE YOUR OWN CAR FINANCING!"

I sent for that Figuring Chart and selected my own payment plan."



WHY don't you send the coupon below and get your GMAC Figuring Chart? It gives you all car financing details in dollars and cents...shows you exactly what you get for what you pay...enables you to figure your own transaction—based on the number of months you want and the amount you wish to pay monthly.

After you've figured your own "deal," compare various finance plans and what they offer! Notice that the General Motors Instalment Plan offers not only low cost—but, also, sound insurance protection for your car!

But see for yourself... mail the coupon for your Figuring Chart today!

When you send for your Figuring Chart, you may request also a "Seasonal Plan Folder" that will help you plan your payments—if necessary—to conform with the seasonal receipt of your income. Your nearest General Motors dealer will gladly help you select the plan most suitable for you.

This plan is available only through dealers in Buick, Chevrolet, Pontiac, Oldsmobile and Cadillac cars.

NO SALESMAN WILL CALL

GENERAL MOTORS INSTALMENT PLAN

GENERAL MOTORS ACCEPTANCE CORPORATION
1775 Broadway, New York

Please send me

- GMAC Figuring Chart
- Seasonal Plan Folder for car checked below:
- CHEVROLET
- PONTIAC
- OLDSMOBILE
- BUICK
- CADILLAC

Name _____

Address _____

City _____

State _____

County _____

Send for this Figuring Chart



INSECT AND DISEASE CONTROL

Spray Hose Fittings

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Broadway Rubber Mfg. Co., Louisville, Ky.
Campbell & Budlong Machine Works, San Jose, Calif.
Campbell-Hausfeld Co., Harrison, Ohio
Central Brass Co., Cleveland, Ohio
Clark Spray Machine Co., Hartford, Ohio
Deming Co., Salem, Ohio
Dobbs Mfg. Co., Elkhart, Ind.
Electric Hose & Rubber Co., Wilmington, Del.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Goodall Rubber Co., Philadelphia, Pa.
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Akron, Ohio
W. L. Hamilton & Co., Bangor, Mich.
Hardie Mfg. Co., Hudson, Mich.
C. B. Hunt & Son, Salem, Ohio
A. M. Leonard & Son, Piqua, Ohio
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Northwest Irrigation Co., Antigo, Wis.
Skinner Irrigation Co., Troy, Ohio
D. B. Smith & Co., Utica, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
B. C. Tillinghast Rubber Co., Philadelphia, Pa.
Edwin C. Tyson, Flora Dale, Pa.
United States Rubber Co., New York, N.Y.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

Spray Protection

FACE SHIELDS

Chicago Eye Shield Co., Chicago, Ill.

GOOGLES

American Optical Co., Southbridge, Mass.
Chicago Eye Shield Co., Chicago, Ill.
H. S. Cover, South Bend, Ind.
Mine Safety Appliances Co., Pittsburgh, Pa.
Minor Rubber Co., Inc., Newark, N.J.
Pulmosan Safety Equipment Corp., Brooklyn, N.Y.
Willson Products, Inc., Reading, Pa.

SPRAYERS! Here Is CLEAR VISION

for the Man Behind the Gun!



E-Z "C"

FACE PROTECTOR

★ Pull out and tear off a little strip of transparent ribbon that slides between guides across the regular visor and water spots and smudge vanish like magic!

Get Better Crop Coverage—Comfort—Security

You will be no less than amazed at the way E-Z "C" enables you to get even distribution of the spray for a more abundant crop. Besides, E-Z "C" provides full protection for face and eyes against lime, sulphur, lead, oil and poisonous sprays. Order from your seedsman, hardware dealer or direct from us. Price \$3 complete. Write

CHICAGO EYE SHIELD CO., 2307 Warren Boulevard, Chicago

MASKS

American Optical Co., Southbridge, Mass.
Binks Mfg. Co., Chicago, Ill.
Chicago Eye Shield Co., Chicago, Ill.
Mine Safety Appliances Co., Pittsburgh, Pa.
Willson Products, Inc., Reading, Pa.

RESPIRATORS

American Optical Co., Southbridge, Mass.
Chicago Eye Shield Co., Chicago, Ill.
H. S. Cover, South Bend, Ind.
B. F. Goodrich Co., Akron, Ohio
Mine Safety Appliances Co., Pittsburgh, Pa.
Minor Rubber Co., Inc., Newark, N.J.
Pulmosan Safety Equipment Corp., Brooklyn, N.Y.
Willson Products, Inc., Reading, Pa.

SKIN PROTECTIVES

Chesebrough Mfg. Co., New York, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Valvoline Oil Co., Cincinnati, Ohio

INSECT AND DISEASE CONTROL

Sprayer Equipment

BEARINGS

Hyatt Bearings Division, General Motors Sales Corp., Harrison, N.J.
New Departure Mfg. Co., Detroit, Mich.
SKF Industries, Inc., Philadelphia, Pa.
Timken Roller Bearing Co., Canton, Ohio

ENGINES

John Bean Mfg. Co., Lansing, Mich.
Briggs & Stratton Corp., Milwaukee, Wis.
J. I. Case Co., Racine, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Cushman Motor Works, Lincoln, Nebr.
John Deere, Moline, Ill.
Dempster Mill Mfg. Co., Beatrice, Nebr.
Fairbanks, Morse & Co., Chicago, Ill.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
Frick Company, Waynesboro, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
Hercules Motors Corp., Canton, Ohio
International Harvester Co., Chicago, Ill.
Le Roi Co., Milwaukee, Wis.
Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
F. E. Myers & Bro. Co., Ashland, Ohio
Nelson Bros. Co., Saginaw, Mich.
New-Way Engine Co., Lansing, Mich.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Novo Engine Co., Lansing, Mich.
Oliver Farm Equipment Sales Co., Chicago, Ill.
Palmer Bros., Cos Cob, Conn.
Stover Mfg. & Engine Co., Freeport, Ill.
Universal Power Sprayer Co., Inc., Plymouth, Mich.
Waukesha Motor Co., Waukesha, Wis.
Witte Engine Works, Inc., Kansas City, Mo.
Worthington Pump & Machinery Co., Buffalo, N.Y.

MOTORS, GASOLINE

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Briggs & Stratton Corp., Milwaukee, Wis.
Cushman Motor Works, Lincoln, Nebr.
Fairbanks, Morse & Co., Chicago, Ill.
Hercules Motor Corp., Canton, Ohio
Stover Mfg. & Engine Co., Freeport, Ill.

TANKS AND TANK FILLERS

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
Frick Company, Waynesboro, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
Kalamazoo Tank & Silo Co., Kalamazoo, Mich.
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Universal Power Sprayer Co., Inc., Plymouth, Mich.

TIRES, PNEUMATIC

Firestone Tire & Rubber Co., Akron, Ohio
Fisk Tire Plant, Division of U.S. Tire Dealers Corp., Chicopee Falls, Mass.
General Tire & Rubber Co., Akron, Ohio
Gillette Rubber Co., Eau Claire, Wis.
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Inc., Akron, Ohio
Kelly-Springfield Tire Co., Cumberland, Md.
Lee Tire & Rubber Corp., Conshohocken, Pa.
Seiberling Rubber Co., Akron, Ohio
United States Rubber Co., Detroit, Mich.



UNIVERSAL SPRAYERS for
SMALL GROWERS. We have a
power sprayer to fit your needs
should you have only a few trees.
Write for descriptive folder.

UNIVERSAL POWER SPRAYER CO.
PLYMOUTH MICHIGAN

JUNE, 1941



GMC offers 15 Stream-
styled Stake Models in
the $\frac{1}{2}$ to $1\frac{1}{2}$ -ton range
— all at low prices

MORE COMFORT for GMC Drivers MORE POWER in GMC Engines

See and drive a GMC before you buy any other low-priced truck. Even the $\frac{1}{2}$ -ton General Motors Trucks give you GMC's exclusive new Cradle-Coil Seats that are "as comfortable as your car," plus GMC Ball-Bearing Steering that really makes truck handling effort-

less. GMC All-Steel Cabs are notably roomy. And GMC gives you performance that is truly sensational. Every one of GMC's 10 great Super-Duty Engines leads the whole industry in pulling power, size for size. Yet, you pay little or no more for a GMC.

Our own YMCA Time Payment Plan assures you of lowest available rates

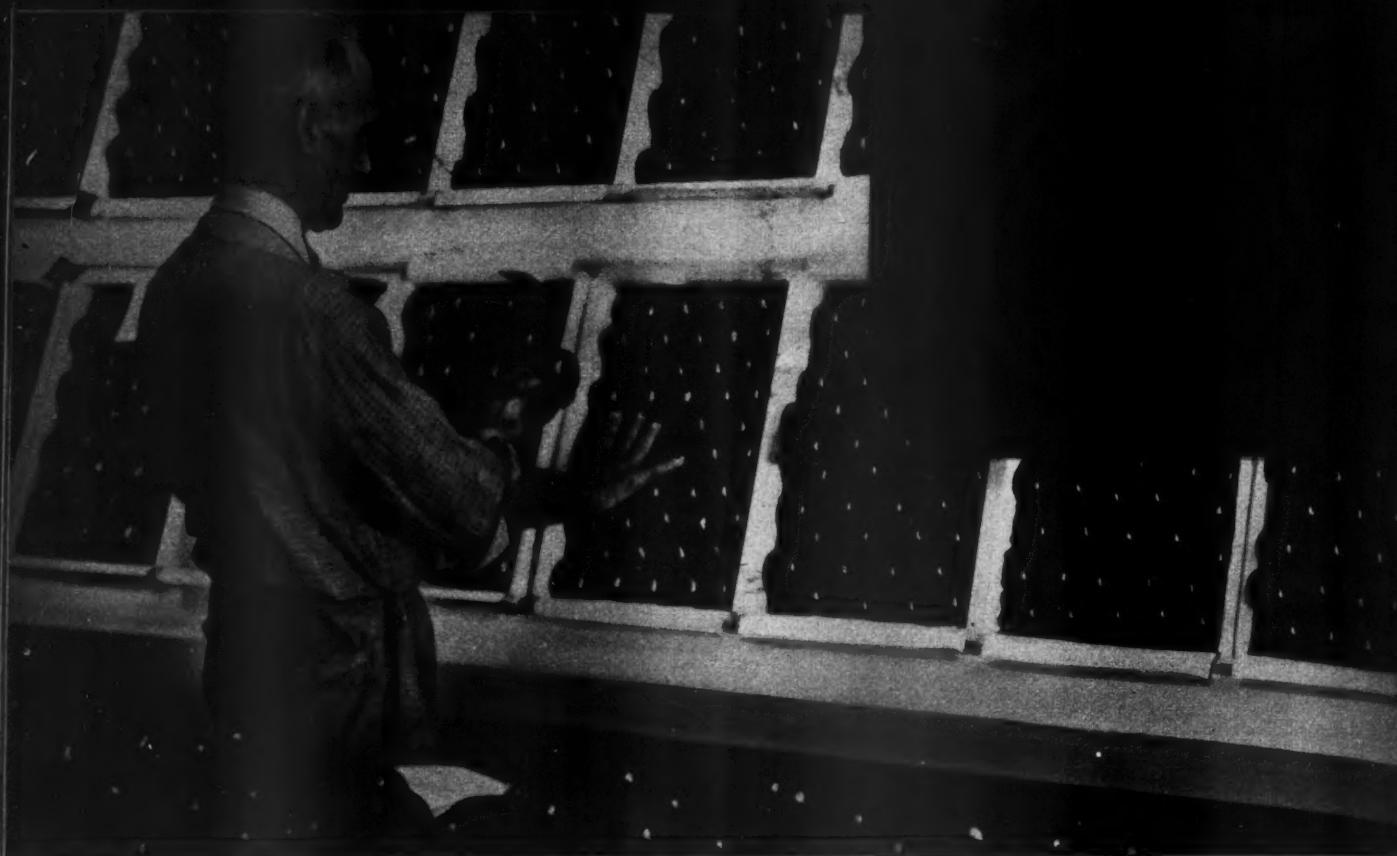


GMC
TRUCKS
GASOLINE - DIESEL

AMERICA'S LOW-PRICED TRUCKS OF VALUE

AMERICAN FRUIT GROWER

PAGE 23



FIRESTONE Ground Grip Tires give your orchard profits an extra push by helping you drive your production costs down.

Here is the only tractor tire with "No Teeth Missing" in its tread — just big, rugged, continuous traction bars that give you a strong, sure, center-bite in every inch of the tread. There are no small, open spaces between the traction bars to cause traction leaks, waste

power, and prevent cleaning! You can actually see the extra traction you get when you measure these husky traction bars with your own rule — as much as 215 extra inches per tractor. Just think how much extra power you get. It costs you not one cent more and you don't have to take anybody's word for that!



Old Dobbin laughs every time he hears anyone say, "An open center gives a better bite."

Here is the most efficient self-cleaning tread on the market. All dirt, mud and trash is forced out of the big, unobstructed open spaces between the bars as they leave the ground.

Because of triple-braced construction, you get 16% greater resistance to bending. That means easier riding, and much longer wear. Only Firestone, who developed and perfected the first practical pneumatic tractor tire, and put the farm on rubber can give you these patented advantages.

Get more work out of every cent's worth of gas and oil you put in your new tractor — insist on Firestone Ground Grip Tires. Or see your local Firestone dealer or store — and find how little it costs to change over your present equipment.

A complimentary package of Burpee's new *Idabelle* Firestone Marigold seeds is yours for the asking at your Firestone dealer or store.

• • •
Listen to the Voice of Firestone with Richard Crooks, Margaret Speaks and the Firestone Symphony Orchestra, under the direction of Alfred Wallenstein, Monday evenings, over N. B. C. Red Network
Cop. 1941, The F. T. & R. Co.

MORE FARM TRACTORS ARE EQUIPPED WITH FIRESTONE TIRES



Naturally
THE WORLD'S
MOST IMITATED
TRACTOR
TIRE

*
**MR. EXTRA
TRACTION**
gets his Name
from the Extra
Traction Bar
Length on every
**FIRESTONE
GROUND GRIP
TIRE**



MAIL THIS COUPON TODAY

The Firestone Tire & Rubber Co., Akron, Ohio
Without obligation on my part, please send me (check below

- A copy of the new Farm Guide Book.
- Information about the Firestone Farm Tire Payment Plan.
- Full details on changing over my farm wagon or spreader.
- Please demonstrate Firestone Ground Grip Tires with my own tractor on my own farm.
- Information on applying the New Ground Grip High Tread to worn tractor tires.

Make and model of tractor.....

Please demonstrate on..... (Indicate town, state, etc.)

Name.....

R. F. D. or Street Number.....

Town..... County..... State.....

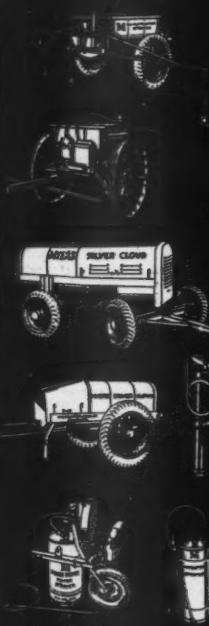
TON TIRES THAN WITH ANY OTHER MAKE

The World's Largest Line of Power Sprayers

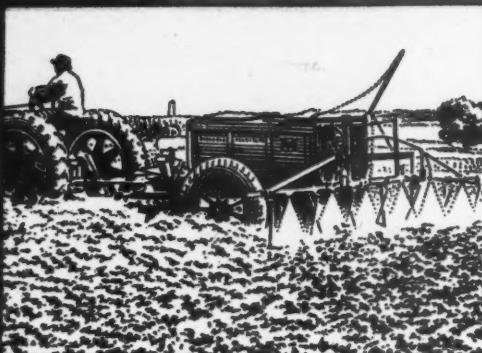


OVER 200
DIFFERENT
TYPES and
SIZES for
Field, Orchard
and Garden

Choose from MYERS
Complete Line



Take Off Your Hat
To The
MYERS



Every round of spraying in orchard or field is an emergency job — a fight against time with your crops and profits at stake. It's a job that calls for the speed and reliability of a Myers Sprayer exactly matched to your needs.

Send for the big new Myers Sprayer Catalog and see the wide choice of Power Sprayers it contains. See how Myers, through advanced designing and rugged construction, builds real fighting stamina into these fast, efficient, smooth-working machines. From the big power outfits down to the small hand sprayers, the Myers line is famous for reliability — and the Myers Sprayer you select is backed by complete dealer service. Mail the coupon today for free Sprayer Catalog and full spraying instructions.

MYERS

Sprayers for EVERY PURPOSE

THE F. E. MYERS & BRO. CO.
"Pump Builders Since 1870"

590 Orange St., Ashland, Ohio

Send free Sprayer Catalog and Guide and name of nearest dealer. Also information on items checked.

Orchard Sprayers	<input type="checkbox"/>	Pump Jacks	<input type="checkbox"/>
Row Crop Sprayers	<input type="checkbox"/>	Water Systems	<input type="checkbox"/>
Hand Sprayers	<input type="checkbox"/>	Sump Pumps	<input type="checkbox"/>
Power Pumps	<input type="checkbox"/>	Centrifugal Pumps	<input type="checkbox"/>
Hand Pumps	<input type="checkbox"/>	Door Hangers	<input type="checkbox"/>
Hay Unloading Tools <input type="checkbox"/>			

SEND
FOR
FREE
BOOK

Name _____

Address _____

7681

INSECT AND DISEASE CONTROL

Sprayers

HAND

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Deming Co., Salem, Ohio
Dobbins Mfg. Co., Elkhart, Ind.
Eureka Mower Co., Utica, N.Y.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
H. D. Hudson Mfg. Co., Chicago, Ill.
A. M. Leonard & Son, Piqua, Ohio
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chem. Co., Middleport, N.Y.
D. B. Smith & Co., Utica, N.Y.
Sprayer Supply Mfg. Co., Grand Rapids, Mich.
Edwin C. Tyson, Flora Dale, Pa.

POWER

John Bacon Inc., Gasport, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Champion Corp., Hammond, Ind.
Dobbins Mfg. Co., Elkhart, Ind.
Eureka Mower Co., Utica, N.Y.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
Love Tractor, Inc., Eau Claire, Mich.
McClain Brothers Co., Canton, Ohio
F. E. Myers & Bro. Co., Ashland, Ohio
Niagara Sprayer & Chem. Co., Middleport, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Universal Power Sprayer Co., Plymouth, Mich.

STATIONARY

John Bean Mfg. Co., Lansing, Mich.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
F. E. Myers & Bro. Co., Ashland, Ohio
Universal Power Sprayer Co., Plymouth, Mich.

TRACTION

John Bean Mfg. Co., Lansing, Mich.
A. B. Farquhar Co., Ltd., York, Pa.
Field Force Mfg. Co., Pottstown, Pa.
"Friend" Mfg. Co., Gasport, N.Y.
Hardie Mfg. Co., Hudson, Mich.
F. E. Myers & Bro. Co., Ashland, Ohio
Universal Power Sprayer Co., Plymouth, Mich.

GUARANTEED HIGH PRESSURE



As Recommended by
State Agricultural Colleges

Let us show you how we can save you money on a Sprayer without compromising quality. You will find the latest models of Field Force Traction, Power Take-Off Sprayers in our new illustrated Catalog. A complete line for Orchard, Vineyard and Row Crop. Sensational new Corwin Boom is adjustable to the size and shape of your row crop.

Send for Our Catalog Today.

FIELD FORCE MFG. CO.

Dept. A Pottstown, Pa.

MAKERS OF SPRAYERS FOR 59 YEARS

Truck Chains

American Chain Div., American Chain & Cable Co., Bridgeport, Conn.
Columbus-McKinnon Chain Co., Tonawanda, N.Y.

Trucks, Motor

Chevrolet Motor Div., General Motors Sales Corp., Detroit, Mich.
Chrysler Corp., Dodge Div., Detroit, Mich.
Chrysler Corp., Plymouth Div., Detroit, Mich.
Dodge Div., Chrysler Corp., Detroit, Mich.
Ford Motor Co., Dearborn, Mich.
General Motors Sales Corp., Chevrolet Motor Div., Detroit, Mich.
General Motors Truck & Coach Div., Yellow Truck & Coach Mfg. Co., Pontiac, Mich.
Hudson Motor Car Co., Detroit, Mich.
International Harvester Co., Chicago, Ill.
Plymouth Div., Chrysler Corp., Detroit, Mich.
Studebaker Corp., South Bend, Ind.
Willys-Overland Co., Toledo, Ohio

SPRAY with
TG 26% COPPER FUNGICIDE

An insoluble copper fungicide. A most effective spray for apples and cherries. Absolutely safe. Controls diseases without injury.

Tennessee Corporation

ATLANTA, GEORGIA
LOCKLAND, OHIO

You, too, can get
maximum
CODLING MOTH
control

For maximum control of codling moth use the spray that has maximum killing power — D-X plus arsenate of lead. D-X combines pyrethrum and rotenone in their most powerful form. It is the most effective codling moth control available today. Use 1 1/2 pints D-X per 100 gallons of arsenate of lead spray at the peak of the first brood moth emergence and again 10 days later. D-X is also a contact spray for aphids, leaf hoppers, etc. Write for full information.

B. G. Pratt Company, Dept. 11, 50 Church Street, New York.

DX

INSECT AND DISEASE CONTROL

SPRAYING MATERIALS

Arsenicals

CALCIUM ARSENATE

American Agricultural Chemical Co., New York, N.Y.
Ansbacher-Siegle Corp., Brooklyn, N.Y.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Micronizer Processing Co., Inc., Moorestown, N.J.
Niagara Sprayer & Chem. Co., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
J. W. Woolfolk Co., Ft. Valley, Ga.

LEAD ARSENATE

American Agricultural Chemical Co., New York N.Y.
Ansbacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Micronizer Processing Co., Inc., Moorestown, N.J.
Niagara Sprayer & Chem. Co., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
J. W. Woolfolk Co., Ft. Valley, Ga.

MAGNESIUM ARSENATE

Dow Chemical Co., Midland, Mich.
Mechling Bros. Chemical Co., Camden, N.J.

PARIS GREEN

Ansbacher-Siegle Corp., Brooklyn, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Sherwin-Williams Co., Cleveland, Ohio
J. W. Woolfolk Co., Ft. Valley, Ga.

ZINC ARSENITE

California Spray-Chemical Corp., Richmond, Calif.
General Chemical Co., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio

Biennial Bearing Sprays

Reilly Tar & Chemical Corp., Indianapolis, Ind.

Copper Compounds

BORDEAUX MIXTURE

Ansbacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Niagara Sprayer & Chem. Co., Middleport, N.Y.
Phelps Dodge Refining Corp., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Tennessee Corp., Atlanta, Ga.
J. W. Woolfolk Co., Ft. Valley, Ga.

Insoluble

(Also known as Fixed Coppers)

American Cyanamid & Chemical Corp., New York, N.Y.
J. T. Baker Chemical Co., Phillipsburg, N.J.
California Spray-Chemical Corp., Richmond, Calif.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Wilmington, Del.

Harshaw Chemical Co., Cleveland, Ohio
Merck & Co., Inc., Rahway, N.J.
Permutit Co., New York, N.Y.
Röhm & Haas Co., Philadelphia, Pa.

Soluble

COPPER SULPHATE
American Cyanamid & Chemical Corp., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Harshaw Chemical Co., Cleveland, Ohio
Mechling Bros. Chemical Co., Camden, N.J.
Phelps Dodge Refining Corp., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Stauffer Chemical Co., New York, N.Y.
Tennessee Corp., Atlanta, Ga.
J. W. Woolfolk Co., Ft. Valley, Ga.

Cryolite

Aluminum Ore Co., Pittsburgh, Pa.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Stauffer Chemical Co., New York, N.Y.

Dinitro Compounds

Dow Chemical Co., Midland, Mich.
General Chemical Co., New York, N.Y.
Standard Agricultural Chemicals, Inc., Hoboken, N.J.

Ethylene Dichloride

Fred Durand, Woodbury, Ga.
General Chemical Co., New York, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Fixed Nicotine

Miller Chemical & Fertilizer Corp., Baltimore, Md.
Tobacco By-Products & Chemical Corp., Louisville, Ky.



TOBACCO BY-PRODUCTS & CHEMICAL CORP.
INCORPORATED • LOUISVILLE, KENTUCKY

Fluorine Compounds

Aluminum Ore Co., Pittsburgh, Pa.
American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
American Fluoride Corp., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
Pennsylvania Salt Mfg. Co., Philadelphia, Pa.
Stauffer Chemical Co., New York, N.Y.

Lime

American Lime & Stone Co., Bellefonte, Pa.
General Chemical Co., New York, N.Y.
Marble Cliff Quarries Co., Columbus, Ohio
Ohio Hydrate & Supply Co., Woodville, Ohio
United States Gypsum Co., Chicago, Ill.
Woodville Lime Products Co., Toledo, Ohio

Nicotine Sulphate

E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
James Good, Inc., Philadelphia, Pa.
Kay-Fries Chemicals, Inc., New York, N.Y.
Nicotine Production Corp., Clarksville, Tenn.
Sherwin-Williams Co., Cleveland, Ohio
Tobacco By-Products & Chemical Corp., Louisville, Ky.
J. W. Woolfolk Co., Ft. Valley, Ga.



TOBACCO BY-PRODUCTS & CHEMICAL CORP.
INCORPORATED • LOUISVILLE, KENTUCKY

C-O-C-S

COPPER OXYCHLORIDE SULPHATE

A NEW and very basic Copper Fungicide

Send for a reprint of Dr. J. D. Wilson's article: A NEW FIXED COPPER COMPOUND OF CONSIDERABLE MERIT, and other descriptive literature.

Manufacturers

THE HARSHAW CHEMICAL CO.
Cleveland, Ohio

Distributors

THE NIAGARA SPRAYER AND CHEMICAL CO.
Middleport, N.Y.

Kryocide
THE NATURAL CRYOLITE

Kryocide may be applied either by dusting or spraying. It has proved an effective control for many insects. Write now for descriptive literature on Kryocide.

PENNSYLVANIA SALT MANUFACTURING COMPANY Chemicals
PHILADELPHIA, PA. • TACOMA, WASH.

ELGETOL

A NON-CAUSTIC DINITRO DORMANT SPRAY

STANDARD AGRICULTURAL CHEMICALS, INC.

HOBOKEN, N.J. SACRAMENTO, CAL.

Superspray Lime

99 1/2% will pass through a screen having 105625 openings per square inch. Write today for experimental station reports of results secured.

The Ohio Hydrate & Supply Co.
Woodville, Ohio

LEWISBURG

SPRAYING AND DUSTING LIME
Aristocrat 400

MIXES EASIER—COVERS BETTER—STICKS CLOSER

"Aristocrat 400" LIME analyzes 97.57% pure Calcium Hydroxide. Ground extremely fine (99.5% guaranteed to pass through a 400 mesh screen), it mixes easier, stays in suspension longer, covers more thor-

oughly and sticks closer. Write today for particulars and prices. The Marble Cliff Quarries Co., 20 N. Fifth St., Columbus, Ohio. Quarries: Lewisburg, O., and Marble Cliff, O.

SHELL

TIME-TESTED SPRAY OILS

- SAVE YOU MONEY
- SAVE MORE OF YOUR CROPS

HERE'S your answer to greater returns on your spray investment—Shell Spray Oils. They reduce insect populations...increase the yield and quality of your crops.

Shell Spray Oils have been especially formulated to meet the varied requirements of orchardists, citrus growers, nurserymen, tree service operators...in fact, anyone who has insect-control problems.

Shell Spray Oils can be used alone or in combination with many other spray materials. They improve coverage. Because they resist weathering, Shell Spray Oils protect over a long period of time.

• • •

Consult Shell's Entomologists for the oil best suited to your needs. If your insecticide dealer cannot supply you with Shell Spray Oils, contact the nearest Shell bulk depot—your Shell Dealer can tell you where it is.



SEND COUPON
FOR FURTHER
INFORMATION
OR ASSISTANCE

Technical Products Dept., SHELL OIL CO., INC., 50 West 56th St., New York, N.Y. (If East of Rockies)

Special Products Dept.
100 Bush Street, San Francisco, Cal. (If on Pacific Coast)

Check which

My problem is _____
(For detailed explanation use separate sheet)
 Send me your newest booklet on Shell Spray Oils.

NAME _____

ADDRESS _____

CITY _____ STATE _____ AF-6-1

INSECT AND DISEASE CONTROL

Oils

EMULSIONS AND MISCELLANEOUS OILS

Summer Oils, Dormant Oils, Tar Emulsions
Ansbaeher-Siegle Corp., Brooklyn, N.Y.
Archer-Daniels-Midland Co., Minneapolis, Minn.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
James Good, Inc., Philadelphia, Pa.
Gulf Refining Co., Pittsburgh, Pa.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Niagara Sprayer & Chemical Co., Middleport, N.Y.
B. G. Pratt Co., New York, N.Y.
Schaeffer Bros. & Powell Co., St. Louis, Mo.
Shell Oil Co., Inc., New York, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Silmco Chemical Co., Inc., Vineland, N.J.
Socony-Vacuum Oil Co., New York, N.Y.
Standard Agricultural Chemicals, Inc., Hoboken, N.J.
Standard Oil Co. of Indiana, Chicago, Ill.
Sun Oil Co., Philadelphia, Pa.
J. W. Woolfolk Co., Ft. Valley, Ga.

Organic Compounds General Chemical Co., New York, N.Y.

Paradichlorobenzene

Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
James Good, Inc., Philadelphia, Pa.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Merck & Co., Inc., Rahway, N.J.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Monsanto Chemical Co., St. Louis, Mo.
Solvay Sales Corp., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Pyrethrum and Derivatives

Ansbaeher-Siegle Corp., Brooklyn, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
General Chemical Co., New York, N.Y.
Kay-Fries Chemicals, Inc., New York, N.Y.
McCormick & Co., Inc., Baltimore, Md.
McLaughlin Gormley King, Minneapolis, Minn.
Mechling Bros. Chemical Co., Camden, N.J.
S. B. Penick & Co., New York, N.Y.
B. G. Pratt Co., New York, N.Y.
Standard Oil Co. of Indiana, Chicago, Ill.

Rotenone Products

Agicide Laboratories, Inc., Milwaukee, Wis.
Ansbaeher-Siegle Corp., Brooklyn, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
McCormick & Co., Inc., Baltimore, Md.
McLaughlin Gormley King, Minneapolis, Minn.
Mechling Bros. Chemical Co., Camden, N.J.
S. B. Penick & Co., New York, N.Y.
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

A Proven KILLER OF PEACH TREE BORER!

Para-dichlorobenzene has long been recommended by the U. S. Dept. of Agriculture and leading fruit growers as a proven killer of the peach tree borer. It destroys the borer's larvae without harm to the tree...is easy to apply...requires no special equipment...no mixing! Write immediately for complete information on

SOLVAY

PARA-DICHLOROBENZENE

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by
The Solvay Process Company
40 RECTOR ST. NEW YORK, N.Y.



INSECTICIDES

FUNGICIDES

TOBACCO DUSTS

SPECIALTIES

INTERSTATE CHEMICAL MANUFACTURING COMPANY 35 NORTH SIXTH ST. READING, PA.

PENETROL

An Activator for Nicotine Spraying Solutions.
An effective neutral spreader and sticker for
Bordeaux, Sulphur, Ground Derris, and Arsenicals.

NICOTROL

The complete Penetrol-Nicotine Spray.
Send for leaflets and price quotations

KAY-FRIES CHEMICALS, Inc.

100 Madison Ave. New York City

THE Complete PEACH SPRAY

DI-CHLOR-MULSION

Kills peach tree-borers.

Write for catalog and pamphlets giving full
information about these superior products.

THE J. W. WOOLFOLK COMPANY, Fort Valley, Ga.

INSECT AND DISEASE CONTROL

Spreaders, Soaps and Stickers

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
Ansbacher-Siegle Corp., Brooklyn, N.Y.
Archer-Daniels-Midland Co., Minneapolis, Minn.
California Spray-Chemical Corp., Richmond, Calif.
Central Soya Co., Fort Wayne, Ind.
Colloidal Products Corp., San Francisco, Calif.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Glidden Co., Cleveland, Ohio
Golden State Co., Ltd., San Francisco, Calif.
Golden State Sales Corp., New York, N.Y.
James Good, Inc., Philadelphia, Pa.
Interstate Chemical Mfg. Co., Reading, Pa.
Kay-Fries Chemicals, Inc., New York, N.Y.
Mechling Bros. Chemical Co., Camden, N.J.
B. G. Pratt Co., New York, N.Y.
Röhm & Haas Co., Philadelphia, Pa.
Sherwin-Williams Co., Cleveland, Ohio
Simo Chemical Co., Vineland, N.J.
Standard Agricultural Chemicals, Inc., Hoboken, N.J.

GOOD'S KEYSTONE BRAND

FISH OIL SOAPs

No. 3 Soft Potash: wetting, spreading and emulsifying agent.

No. 9 Rosin Soap: "sticker" for Bordeaux and other chemical sprays on grapes, cranberries, asparagus, tomatoes, etc.

JAMES GOOD, Inc.

2101 E Susquehanna Ave., Philadelphia, Pa

Sulphurs

DRY LIME SULPHUR

Ansbacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio

LIQUID LIME SULPHUR

Ansbacher-Siegle Corp., Brooklyn, N.Y.
Bowker Chemical Co., New York, N.Y.
California Spray-Chemical Corp., Richmond, Calif.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Interstate Chemical Mfg. Co., Reading, Pa.
Miller Chem. & Fertilizer Corp., Baltimore, Md.
Niagara Sprayer & Chem. Co., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
J. W. Woolfolk Co., Ft. Valley, Ga.

WETTABLE SULPHUR

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
Ansbacher-Siegle Corp., Brooklyn, N.Y.
Calcium Sulphide Corp., Damascus, Va.
California Spray-Chemical Corp., Richmond, Calif.
Chipman Chemical Co., Inc., Bound Brook, N.J.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
E. I. du Pont de Nemours & Co., Inc., R. & H. Chemicals Dept., Pacific Div., El Monte, Calif.
General Chemical Co., New York, N.Y.
Koppers Products Co., Pittsburgh, Pa.
Mechling Bros. Chemical Co., Camden, N.J.
Micronizer Processing Co., Inc., Moorestown, N.J.
Miller Chem. & Fertilizer Corp., Baltimore, Md.
National Sulphur Co., Inc., New York, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Stauffer Chemical Co., New York, N.Y.
J. W. Woolfolk Co., Ft. Valley, Ga.

Zinc Sulphate

E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
Glidden Co., Cleveland, Ohio
Sherwin-Williams Co., Cleveland, Ohio
Tennessee Corp., Atlanta, Ga.
Virginia Smelting Co., West Norfolk, Va.

ANNOUNCING

DN=Dust



A New Type Dusting Material to Control Summer Infestation of European Red Mite on Apples

Because of unusual spring conditions this year, many growers were unable to complete their dormant spraying. Although it's impossible to predict insect infestation, it's logical to anticipate considerable Red Mite injury. Build-up is rapid with proper weather conditions. So watch your orchards, and when the mite is present apply DN-DUST* D-4.

This new Dow product for use in any efficient duster is dynamite to the Red Mite. Write to Dow today for more complete information.

**DN-DUST D-4—A Contact Insecticide—High Initial Kill
—Prolonged Toxic Action—Low Cost—Safe**

THE DOW CHEMICAL COMPANY • Midland, Michigan

New York City, St. Louis, Chicago

*Trade Mark Reg. U.S. Pat. Off.

Working with you for America



SOIL MANAGEMENT

Fertilizers

AGRICULTURAL LIME

American Lime & Stone Co., Bellefonte, Pa.
Marble Cliff Quarries Co., Columbus, Ohio
Ohio Hydrate & Supply Co., Woodville, Ohio
Scioto Lime & Stone Co., Delaware, Ohio
United States Gypsum Co., Chicago, Ill.
Woodville Lime Products Co., Toledo, Ohio

AMMONIUM PHOSPHATE

American Cyanamid Co., Fertilizer Div., New York, N.Y.

BORAX

American Potash & Chem. Corp., New York, N.Y.
Pacific Coast Borax Co., New York, N.Y.



BORAX—BORIC ACID

Borax or Boric Acid—for the effective control of BORON DEFICIENCY DISORDERS in apple orchards.

Write for your free copy
"Borax, the Ounce of Prevention"

PACIFIC COAST BORAX CO.

51 Madison Ave., New York City

CALCIUM CYANAMID

American Cyanamid Co., Fertilizer Div., New York, N.Y.

CALCIUM NITRATE

Synthetic Nitrogen Prod. Corp., New York, N.Y.

GYPSUM

American Gypsum Co., Port Clinton, Ohio
United States Gypsum Co., Chicago, Ill.

MAGNESIUM SULPHATE

American Cyanamid Co., Fertilizer Div., New York, N.Y.

Armour Fertilizer Works, Atlanta, Ga.

Dow Chemical Co., Midland, Mich.

E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.

James Good, Inc., Philadelphia, Pa.
Mallinckrodt Chemical Works, St. Louis, Mo.

MANGANESE SULPHATE

Carus Chemical Co., La Salle, Ill.
Harshaw Chemical Co., Cleveland, Ohio
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Tennessee Corp., Atlanta, Ga.
Tennessee Eastman Corp., Kingsport, Tenn.

MIXED FERTILIZERS, COMMERCIAL

Armour Fertilizer Works, Atlanta, Ga.
Davison Chemical Corp., Baltimore, Md.
Federal Chemical Co., Louisville, Ky.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Stimulplant Laboratories, Inc., Long Island City, N.Y.

Tennessee Corp., Atlanta, Ga.
Wilson & Co., Chicago, Ill.

NITRATE OF POTASH

Battelle & Renwick, New York, N.Y.
Chilean Nitrate Sales Corp., New York, N.Y.
Miller Chemical & Fertilizer Corp., Baltimore, Md.

NITRATE OF SODA
Armour Fertilizer Works, Atlanta, Ga.
Barrett Co., The, New York, N.Y.
Chilean Nitrate Sales Corp., New York, N.Y.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Smith Agricultural Chemical Co., Columbus, Ohio



ARCADIAN

The American NITRATE of SODA
SEE YOUR FERTILIZER MAN!

POTASH SALTS

American Potash & Chemical Corp., New York, N.Y.

American Potash Institute, Inc., Washington, D.C.

Armour Fertilizer Works, Atlanta, Ga.
N. V. Potash Export My., Inc., New York, N.Y.
Potash Co. of America, Baltimore, Md.
Smith Agricultural Chemical Co., Columbus, Ohio

U. S. Potash Co., New York, N.Y.

SULPHATE OF AMMONIA

Armour Fertilizer Works, Atlanta, Ga.

Barrett Co., The, New York, N.Y.

Miller Chemical & Fertilizer Corp., Baltimore, Md.
Smith Agricultural Chemical Co., Columbus, Ohio

SULPHUR

Miller Chemical & Fertilizer Corp., Baltimore, Md.
National Sulphur Co., Inc., New York, N.Y.
Stauffer Chemical Co., New York, N.Y.

SUPERPHOSPHATE

Armour Fertilizer Works, Atlanta, Ga.
Miller Chemical & Fertilizer Corp., Baltimore, Md.
Smith Agricultural Chemical Co., Columbus, Ohio

UREA

E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Inoculants

Agricultural Laboratories, Inc., Columbus, Ohio
Albert Dickinson Co., Chicago, Ill.
Edwards Laboratory, Lansing, Mich.
Kao Inoculant Co., Quincy, Ill.
Nitragin Co., Milwaukee, Wis.
Urbana Laboratories, Urbana, Ill.

Mesh Fabric, Soil Retention

Bemis Bro. Bag Co., St. Louis, Mo.

Peat Moss

Atkins & Durbrow, Inc., New York, N.Y.
Domestic Peat Co., Centerville, Maine
Maine Peat Moss Inc., Jonesport, Maine
New Amsterdam Import & Supply Co., New York, N.Y.
Peter Patterer, Inc., Battle Creek, Mich.
Peat Import Corp., New York, N.Y.
Peat Institute of America, New York, N.Y.
Premier Peat Moss Corp., New York, N.Y.

Soil Testing Outfits

Edwards Laboratory, Lansing, Mich.
Sudbury Soil Testing Laboratory, Sudbury, Mass.

Domestic SULPHATE of AMMONIA 20.5% NITROGEN

SEE YOUR FERTILIZER MAN!

How To Relieve Distress of FEMALE PERIODIC COMPLAINTS



Few women today do not suffer some distress from monthly functional disturbances. Maybe you've noticed YOURSELF getting restless, blue and nervous at such times? Then try famous Lydia E. Pinkham's Vegetable Compound to help quiet unstrung nerves, relieve monthly pain (cramps, backache, headache) and distress due to periodic disturbances. Pinkham's Compound has relieved such rundown nervous, cranky feelings for hundreds of thousands of women. WORTH TRYING!

HOTELS IN AMERICA



Reasonable Rates

at the BELLEVUE

EFFICIENT
yet unobtrusive service. Complete facilities and accommodations. Cuisine that delights the epicure. An atmosphere of friendly hospitality. These characteristics endear the Bellevue to experienced travelers.

BELLEVUE STRATFORD IN PHILADELPHIA

Claude H. Bennett, General Manager

Ring Fertilization Makes Rich Fathers But Poor Sons

Ring fertilization—with a starved cover crop or none at all outside the fertilized ring—means rapid impoverishment of the humus supply; increased liability to erosion; and premature failure of the orchard.

Orchards regularly fertilized with GRANULAR 'AERO' CYANAMID—the lime-nitrogen fertilizer—broadcast at the rate of 400 pounds per acre, receive nitrogen enough for the trees and cover crop; and lime enough to neutralize the soil acidity resulting from sulfur sprays, dusts, and acid-residue fertilizers.

Write for Leaflet F-181



AMERICAN CYANAMID COMPANY
30 ROCKEFELLER PLAZA NEW YORK, N.Y.

HARVEST SPRAYS

Harvest Sprays
(Naphthalene Acetic Acid
Naphthalene Acetamide)

American Chemical Paint Co., Ambler, Pa.
American Cyanamid & Chemical Corp., New York, N.Y.
California Spray-Chemical Corp., Elizabeth, N.J.
Dow Chemical Co., Midland, Mich.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Merck & Co., Inc., Rahway, N.J.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Sherwin-Williams Co., Cleveland, Ohio
Westville Laboratories, New Haven, Conn.

APPLELOK

Naphthaleneacetic Acid Apple Spray

FOR LESS DROP
BETTER COLOR
LARGER SIZE
EXTRA QUALITY

Applelok Harvest Spray has been proven successful by actual orchard tests. The concentrate contains 4 grams of Naphthaleneacetic Acid per pint.

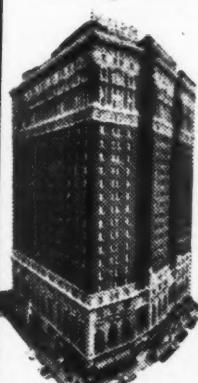
WRITE FOR FOLDER AND PRICES

WESTVILLE LABORATORIES
BOX 1363, NEW HAVEN, CONN.

COMING TO NEW YORK?

Stop at HOTEL MCALPIN

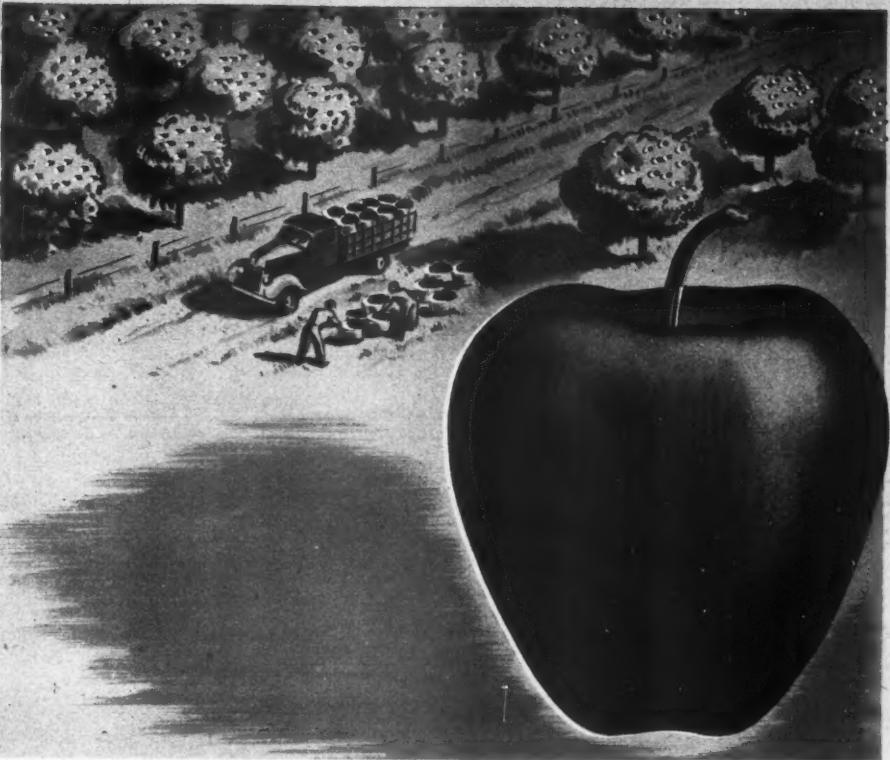
Because it is located in "the center of convenience", McAlpin guests have more time to devote to business and for pleasure.



1 block from
Penn Station
and Empire
State Bldg.
B. & O. Motor
Coaches stop
at our door.

LARGE
BEAUTIFUL
ROOMS WITH
PRIVATE BATH
FROM
\$3 SINGLE,
\$4.50 DOUBLE

**HOTEL
MCALPIN**
BROADWAY AT 34th ST., NEW YORK
Under KNOTT Management
JOHN J. WOELFLE, Manager



Use PARMONE

REG. U. S. PAT. OFF.

For bigger, better color, better quality apples this season!

PROVE to yourself that Du Pont PARMONE Hormone Spray will save you money by reducing pre-harvest apple drop. It costs you money when your apples fall before harvest time. Your crop is reduced in quality, size and color. But you can avoid this loss with PARMONE.

It's best to spray *all* your apple trees with PARMONE. But if you have any doubts, leave a few trees unsprayed. Then compare results. You'll be amazed by the difference!

PARMONE is prepared as a liquid for uniform dispersion and easier mixing in the finished spray. It mixes readily with water and remains well in suspension. One pint of PARMONE will make 100 gallons of spray. If additional sticking is desired, summer oil may be added to the spray mixture.

Order PARMONE from your nearest dealer or write direct to

E. I. DU PONT DE NEMOURS & COMPANY

INCORPORATED

**GRASSELLI CHEMICALS DEPARTMENT
WILMINGTON**

DELAWARE



INSECTICIDES

*GRASSELLI Lead Arsenate
*NUREXFORM Lead Arsenate
*SULFORON Wettable Sulfur
GRASSELLI Spreader-Sticker

*BLACK LEAF 40
Nicotine Sulfate
Flotation Sulfur Paste

FUNGICIDES

Dry Lime Sulfur
Zinc Sulfate
Spray Oils
Bordeaux Mixture
Calcium Arsenate
Cryolite-Synthetic
Lime Sulfur Solution

Comfort...

FAST PRUNING
WITH NO CRAMP
OR STRAIN



Prune hours at a time without fatigue. Use Atkins Improved Pruning Shear—4 styles designed by horticulturists. Cuts fast, clean—stays sharp. See at dealers. Write for FREE catalog.

Pruning Tools
by **ATKINS**

E. C. ATKINS AND COMPANY
484 S. Illinois St. Indianapolis, Ind.

Twin-Cut No. 9 Professional

It feels right in the hand—it cuts at the point, which means ease and speed. Both blades sharp. Wide blade opening with minimum handle opening. Precision built. All parts drop forged and interchangeable.



POINTCUT PRUNER

Power, speed and clean cutting make this a fine orchard tool. Cuts up to $1\frac{1}{4}$ " green wood. Fast cutting on sprout and sucker growth at the point. Both edges cut without stripping bark or crushing fibers. A precision tool made to give long service.



PORTER PRUNERS

SEND for catalog. Shows full line. Special pruners for orchards—peach, citrus, pecan, etc. Tells you why Porter Pruners cut faster, cleaner—why they stand up under hard service.

M. K. PORTER, Inc. Everett, Mass.

FOR FINER FRUIT



Wiss My-Power Pruner

WISS
PRUNERS
LOPPING SHEARS
THINNING SHEARS

A Pruner for Every Purse and Purpose
Write for Full Particulars

Famous for Quality Since 1848 **J. Wiss & Sons Co. NEWARK, N. J.**

EVERYTHING FOR THE ORCHARD

PRUNING, GRAFTING, BUDGING TOOLS—Knives, Saws, Shears, Hand and Pole Pruners, Wax, Wax Melters, Rafts, Rubber Budding Strips, J. & J. Nursery Tape, Tree Seal, Tree Kote, Sa-Va-Tree, Hormodin, Paint Mixture, The Surgeon Supplies, Cod-O-Cide Tree Bands. State requirements and ask for Special Literature. No General Catalog.

EDWIN C. TYSON, FLORA DALE, PA.
See Ads Pages 21, 42

GRAFTWAX—TREE HEALANT Heals pruned stubs. Arrests—cures tree diseases, blights, wounds. Waterproof, adhesive. Excels in grafting. Hastens union of stock and scion. SMEARED ON COLD. Seions dipped in melted Graftwax keep indefinitely prolonging grafting season. Curative tree cavity filler. **GRAFTWAX SEALS AND HEALERS**, 1 lb., 60c. 2 to 6 lbs. 50c/lb. 12 lbs., \$5.00. Postpaid. Free Sample.

CLARION DEVELOPMENT COMPANY, INC., Dept. A, Clarion, Pa.

PAGE 32

PRUNING AND GRAFTING

Budding Strips and Tape

Bartlett Mfg. Co., Detroit, Mich.
B. F. Goodrich Co., Akron, Ohio
A. M. Leonard & Son, Piqua, Ohio
Thomas B. Meehan Co., Dresher, Pa.
Revolute Corp., New Brunswick, N.J.
Edwin C. Tyson, Flora Dale, Pa.
United States Rubber Co., New York, N.Y.

Grafting Compounds

John Bacon Inc., Gasport, N.Y.
Bartlett Mfg. Co., Detroit, Mich.
Clarion Development Co., Clarion, Pa.
Flintkote Co., New York, N.Y.
Joseph A. Fraim Co., Inc., Norfolk, Va.
B. F. Goodrich Co., Akron, Ohio
Heveatex Corp., Melrose, Mass.
Hill Top Orchards & Nurseries, Hartford, Mich.
M. H. Hunt & Son, Lansing, Mich.
Interstate Chemical Mfg. Co., Reading, Pa.
A. M. Leonard & Son, Piqua, Ohio

Knives

E. C. Atkins & Co., Indianapolis, Ind.
Bartlett Mfg. Co., Detroit, Mich.
Walter E. Clark & Son, Milford, Conn.
Henry Diston & Sons, Philadelphia, Pa.
A. M. Leonard & Son, Piqua, Ohio
Remington Arms Co., Bridgeport, Conn.
Carroll R. Tiffany, Conklin, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

Lanterns, Grafting

M. H. Hunt & Son, Lansing, Mich.
A. M. Leonard & Son, Piqua, Ohio
Edwin C. Tyson, Flora Dale, Pa.
A. G. Woodman Co., Grand Rapids, Mich.

Melting Pots

Bartlett Mfg. Co., Detroit, Mich.
Walter E. Clark & Son, Milford, Conn.
A. M. Leonard & Son, Piqua, Ohio
Rollin H. Tabor, Mt. Vernon, Ohio

Propagating Materials

GROWTH STIMULATING CHEMICALS
American Chemical Paint Co., Ambler, Pa.
Merck & Co., Inc., Rahway, N.J.

PEAT MOSS

Atkins & Durbrow, Inc., New York, N.Y.
Domestic Peat Co., Centerville, Maine
Dunlop Sales Co., Minneapolis, Minn.
Maine Peat Moss, Inc., Jonesport, Maine
Peter Patterer, Inc., Battle Creek, Mich.
Peat Import Corp., New York, N.Y.
Peat Institute of America, New York, N.Y.
Premier Peat Moss Corp., New York, N.Y.

ROOT FORMING CHEMICALS

American Chemical Paint Co., Ambler, Pa.
Merck & Co., Inc., Rahway, N.J.

WAX EMULSIONS

Dow Chemical Co., Midland, Mich.

ACME GRAFTING COMPOUND

Endorsed by Michigan State College. Moderately priced and applied cold with a brush. Used also as a protective coating for injury. Send for price list. Dealers wanted.

M. H. Hunt & Son, 510 N. Cedar St., Lansing, Mich.

Professional model pruner No. 800
CORONA "CALKINS"

Finer than the best imported pruners. Easiest and cleanest cutting shear—Bar None. Used and endorsed by experts.

At your dealers or sent postpaid upon receipt of \$3.75

CORONA CLIPPER CO.
CORONA, CALIF.

STATIC GRAFTING COMPOUND

Asphalt Emulsion—Applied Cold

For all types of tree grafting, wound dressing, etc. No heating necessary. Just mix with water and apply cold. Adheres firmly to all surfaces. Does not retard the growth of callus. Not affected by the hottest weather. Easy to apply—economical to use on any kind of tree. Write for full information.

THE FLINTKOTE COMPANY

Industrial Products Division
30 Rockefeller Plaza
New York, N.Y.

AMERICAN FRUIT GROWER

Pruners

American Fork & Hoe Co., Cleveland, Ohio
E. C. Atkins & Co., Indianapolis, Ind.
Bartlett Mfg. Co., Detroit, Mich.
Corona Clipper Co., Corona, Calif.
Henry Diston & Sons, Philadelphia, Pa.
A. M. Leonard & Son, Piqua, Ohio
Magennis Power Pruning Machine, Akron, Ohio
H. K. Porter, Inc., Everett, Mass.
Wm. Schollhorn Co., New Haven, Conn.
Seymour Smith & Son, Inc., Oakville, Conn.
Carroll R. Tiffany, Conklin, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Wells & Wade, Wenatchee, Wash.
J. Wiss & Sons Co., Newark, N.J.

Pruners, Power

Magennis Power Pruning Machine, Akron, Ohio
Rosin

James Good, Inc., Philadelphia, Pa.
Hercules Powder Co., Wilmington, Del.
M. H. Hunt & Son, Lansing, Mich.

Saws

E. C. Atkins & Co., Indianapolis, Ind.
Bartlett Mfg. Co., Detroit, Mich.
Henry Diston & Sons, Philadelphia, Pa.
A. M. Leonard & Son, Piqua, Ohio
Seymour Smith & Son, Inc., Oakville, Conn.

Shears

American Fork & Hoe Co., Cleveland, Ohio
E. C. Atkins & Co., Indianapolis, Ind.
Bartlett Mfg. Co., Detroit, Mich.
Henry Diston & Sons, Philadelphia, Pa.
A. M. Leonard & Son, Piqua, Ohio
Peek, Stow & Wilcox Co., Southington, Conn.
H. K. Porter, Inc., Everett, Mass.
Rhodes Mfg. Co., Grand Rapids, Mich.
Wm. Schollhorn Co., New Haven, Conn.
Seymour Smith & Son, Inc., Oakville, Conn.
Carroll R. Tiffany, Conklin, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
J. Wiss & Sons Co., Newark, N.J.

Tree Bracers

Bartlett Mfg. Co., Detroit, Mich.
Hill Top Orchards & Nurseries, Hartford, Mich.

Wax

John Bacon Inc., Gasport, N.Y.
Bartlett Mfg. Co., Detroit, Mich.
Clarion Development Co., Inc., Clarion, Pa.
M. H. Hunt & Son, Lansing, Mich.
Interstate Chemical Mfg. Co., Reading, Pa.
A. M. Leonard & Son, Piqua, Ohio
Standard Oil Co. of Indiana, Chicago, Ill.
Rollin H. Tabor, Mt. Vernon, Ohio
Edwin C. Tyson, Flora Dale, Pa.
A. G. Woodman Co., Grand Rapids, Mich.

Wound Dressings

Bartlett Mfg. Co., Detroit, Mich.
Carbolineum Wood Preserving Co., Milwaukee, Wis.
C-A-Wood Preserver Co., St. Louis, Mo.
Clarion Development Co., Clarion, Pa.
Corona Chemical Div. of Pittsburgh Plate Glass Co., Milwaukee, Wis.
Flintkote Co., New York, N.Y.
Joseph A. Fraim Co., Norfolk, Va.
Hill Top Orchards & Nurseries, Hartford, Mich.
Interstate Chemical Mfg. Co., Reading, Pa.
A. M. Leonard & Son, Piqua, Ohio
Sherwin-Williams Co., Cleveland, Ohio
Southport Paint Co., Inc., Savannah, Ga.
Rollin H. Tabor, Mt. Vernon, Ohio
Edwin C. Tyson, Flora Dale, Pa.

TROUBLE-FREE Nothing to pinch PRUNING

This Drop Forged Tool
Hand Pruner has a crucible
blown blade and hardened hook. Unparalleled. Special price
\$3.25 less 10% prepaid. Ask for catalog showing a complete
line of pruning tools, shears, saws, loppers, etc.

PRUNING COMPOUND

For destroying and preventing the growth of
wood destroying fungi and for the protection of
wounds, use Bartlett Tree Paint. Easily applied
with ordinary paint brush. \$1.50 per gallon.

BARTLETT MFG. CO.

3044 E. Grand Blvd.

Detroit, Mich.

GOOSENECK PRUNER

Narrow head—slender gooseneck—the smartest
thing in the grove—a pruner built for fast work
in citrus, peach and pecan trees. Light action,
two sharp blades cut without damaging bark
or crushing fibres.

Tell your dealer you want a Porter Gooseneck
Pruner. Write for catalog of Porter Pruners.

H. K. PORTER, Inc., Everett, Mass.

JUNE, 1941

NURSERY STOCK

Fruit Trees

Ackerman Nursery, Bridgman, Mich.
Allen's Nurseries & Seed House, Geneva, Ohio
Andrews Nursery Co., Faribault, Minn.
Armstrong Nurseries, Ontario, Calif.
O. A. D. Baldwin Nursery, Bridgman, Mich.
Benton County Nursery Co., Rogers, Ark.
W. A. Bents Nurseries, Cresco, Iowa
Bountiful Ridge Nurseries, Princess Anne, Md.
Bradley Brothers, Carbondale, Ill.
Bridgman Nursery Co., Bridgman, Mich.
Bunting's Nurseries, Inc., Selbyville, Del.
C. R. Burr & Co., Manchester, Conn.
California Nursery Co., Niles, Calif.
Call's Nurseries, Perry, Ohio
Carlton Nursery Co., Carlton, Ore.
Champion Nurseries, Perry, Ohio
Chase Brothers Co., Geneva, N.Y.
Chattanooga Nurseries, Chattanooga, Tenn.
Cole Nursery Co., Painesville, Ohio
Columbia & Okanogan Nursery Co., Wenatchee, Wash.
Condon Bros. Seedsmen, Rockford, Ill.
Daniels Nursery, Inc., Long Lake, Minn.
Dunham's Grand Mere Nurseries, Baroda, Mich.
Emlong's Nursery, Stevensville, Mich.
Glen St. Mary Nurs. Co., Glen St. Mary, Fla.
Grand Island Nurseries, Eustis, Fla.
Greening Nursery Co., Monroe, Mich.
Grifing Nurseries, Beaumont, Texas
Carl A. Hansen Nursery, Brookings, S.D.
Harrison's Nurseries, Berlin, Md.
Hill Top Orchard & Nurseries, Hartford, Mich.
Hood's Old Dominion Nurseries, Richmond, Va.
Howard-Hickory Nurseries, Hickory, N.C.
I. E. Ilgenfritz' Sons Co., Monroe, Mich.
Inter-State Nurseries, Hamburg, Iowa
E. W. Jones Nursery Co., Woodlawn, Va.
J. F. Jones Nurseries, Lancaster, Pa.
R. M. Kellogg Co., Three Rivers, Mich.
Kelly Bros. Nurseries, Dansville, N.Y.
Kridler Nurseries, Inc., Middlebury, Ind.
Lake's Shenandoah Nurseries, Shenandoah, Ia.
Maloney Bros. Nursery Co., Dansville, N.Y.
Markham's Nursery, Xenia, Ill.
May Nursery Co., Yakima, Wash.
Thomas B. Meehan Co., Dresher, Pa.
Milton Nursery Co., Milton, Ore.
George A. Morse, Williamson, N.Y.
Mount Arbor Nurseries, Shenandoah, Iowa
New Jersey Peach Council, Princeton, N.J.
Nut Tree Nurseries, Downingtown, Pa.
W. N. Scarff's Sons, New Carlisle, Ohio
Smith Bros. Nursery Co., Concord, Ga.
South Michigan Nursery, New Buffalo, Mich.
F. C. Stahelin & Son, Bridgman, Mich.
Stark Bro's Nurseries & Orchards Co., Louisiana, Mo.
Storrs & Harrison, Painesville, Ohio
E. W. Townsend Sons, Salisbury, Md.
Vienna Nursery, Vienna, Ill.
Watheana Nurseries, Watheana, Kans.
Waynesboro Nurseries, Waynesboro, Va.
T. B. West & Son, Perry, Ohio
West Hill Nurseries, Fredonia, N.Y.
White Rose Seed & Nursery Co., York, Pa.

Fruit Trees, Dwarf

Kelly Bros. Nurseries, Dansville, N.Y.
Henry Leuthardt, Port Chester, N.Y.
Maloney Bros. Nursery Co., Dansville, N.Y.
W. N. Scarff's Sons, New Carlisle, Ohio
Storrs & Harrison, Painesville, Ohio
U. S. Espalier Nursery Co., Inc., Portland, Ore.
T. B. West & Son, Perry, Ohio

Rootstock Material

California Nursery Co., Niles, Calif.
Robert M. Clark, Mitchellville, Iowa
Greening Nursery Co., Monroe, Mich.
House of Gurney, Inc., Yankton, S.D.
Mount Arbor Nurseries, Shenandoah, Iowa
Virginia Tree Farms, Woodlawn, Va.
A. Willis & Co., Ottawa, Kans.
Small Fruits and Grape Vines
Ackerman Nursery, Bridgman, Mich.
W. F. Allen Co., Salisbury, Md.
Allen's Nurseries & Seed House, Geneva, Ohio
Andrews Nursery Co., Faribault, Minn.
Anna Strawberry Nursery, Anna, Ill.
O. A. D. Baldwin Nursery, Bridgman, Mich.
V. P. Basham, Mountainburg, Ark.
Benton County Nursery Co., Rogers, Ark.
W. A. Bents Nurseries, Cresco, Iowa
J. C. Black, Powell Station, Tenn.
Bountiful Ridge Nurseries, Princess Anne, Md.
Boysenberry Plantation, Lapeer, Mich.
Fred Braden, Wayzata, Minn.
Bradley Bros., Carbondale, Ill.
Bunting's Nurseries, Inc., Selbyville, Del.
Burr Nurseries, Manchester, Conn.
California Nursery Co., Niles, Calif.
Call's Nurseries, Perry, Ohio
Cavenee's Nursery, Jonesboro, Ill.
Champion Nurseries, Perry, Ohio
Chattanooga Nurseries, Chattanooga, Tenn.

JUNE, 1941

Cash IN ON THE Growing DEMAND FOR Fruit!

"IN NATIONAL DEFENSE —Fruit Is the Ammunition of Health"

The interest of the whole nation is aroused—the attention of the whole country is focused upon the nutritional and health value of fruit. U. S. Gov't. officials say: "the first job of National Defense is to make our citizens physically fit"—the Dept. of Agric. says: "plenty of fresh fruit and vegetables are needed." If Americans are to be healthy and strong, a golden day is dawning for orchardists—this great revival of interest in the dietary value of fruit will tremendously increase fruit consumption, create bigger demand and HIGHER PRICES. Now as never before growers of quality fruits can reap rich rewards.

Plant Stark Young and Heavy Bearing Quick Profit-Makers

Buy trees as you would buy "blooded" livestock—Stark Record-Bearing - Strain Fruit Trees—NEW, Exclusive U. S. Patent varieties that give assurance of quickest, greatest yields and profits—STARKING, new, Improved Double-Red Delicious, King of All Red Apples, first on the market at Top Prices—GOLDEN DELICIOUS, Queen of All Yellow Apples, greatest profit-maker of all—the fine-flavored favorite of millions. Extremely hardy. 33 states report bearing in 2 years.

STARK BRO'S NURSERIES BOX B-01, Louisiana, MISSOURI Largest in the World—Oldest in America

Charles Willing of Ohio took advantage of the GOOD-INCOME Opportunity Stark offers in the pleasant, healthful occupation of taking orders for Stark Trees, Shrubs and Roses. In two weeks his gross CASH EARNINGS were \$82.09. This Profitable opportunity is open to you too—no investment—no experience needed to work part or full-time. Cash paid weekly. Stark's reputation and Exclusive Fruit and Ornamental varieties make it EASY to take orders. Check Coupon NOW for our LIBERAL WEEKLY CASH INCOME PLAN.

Cole Nursery Co., Painesville, Ohio
Columbi & Okanogan Nursery Co., Wenatchee, Wash.

Condon Bros. Seedsmen, Rockford, Ill.
Daniels Nursery, Inc., Long Lake, Minn.
Dunham's Grand Mere Nurseries, Baroda, Mich.
Emlong's Nursery, Stevensville, Mich.
Fish & Bond, Eugene, Ore.

Franklin County Nurseries, Greenfield, Mass.
Fussell Brothers, Teachey, N.C.
F. A. Guernsey & Co., Inc., Schoharie, N.Y.
W. Halbert, Oxford, N.Y.

Carl A. Hansen Nursery, Brookings, S.D.
Harrison's Nurseries, Berlin, Md.

Fred Hazelton, LeRoy, N.Y.

Hill Top Orchards & Nurseries, Hartford, Mich.

Howard-Hickory Co., Hickory, N.C.
I. E. Ilgenfritz' Sons Co., Monroe, Mich.

L. E. Ingoldsby Nursery, Lindsay, Calif.

Inter-State Nurseries, Hamburg, Iowa

J. W. Jones & Son, Franklin, Va.

T. Kasuga and Son, Sandy, Utah

Dr. Keefe's Blueberry Plantation, Grand Junction, Mich.

Keith Plant Nursery, Sawyer, Mich.

R. M. Kellogg Co., Three Rivers, Mich.

Kelly Bros. Nurseries, Dansville, N.Y.

John Lightfoot, Birchwood, Tenn.

Maloney Bros. Nursery Co., Inc., Dansville, N.Y.

Markham's Nursery, Xenia, Ill.

R. R. McUmber, Greenfield, Tenn.

J. E. Miller Grape Nursery, Naples, N.Y.

George A. Morse, Williamson, N.Y.

Perkins Bros., St. Paul, Minn.

Pinecrest Gardens, Champlin, Minn.

Raynor Bros., Salisbury, Md.

C. H. Rochelle, Kenton, Tenn.

E. L. Russell, Jonesville, Va.

W. N. Scarff's Sons, New Carlisle, Ohio

Shelby Plant Farms, Memphis, Tenn.

J. H. Shivers Plant Farms, Allen, Md.

South Michigan Nur., New Buffalo, Mich.

Spring Hill Nurseries, Tippecanoe City, Ohio

F. C. Stahelin & Son, Bridgman, Mich.

Stark Bro's Nurseries & Orchards Co., Louisiana, Mo.

Storrs & Harrison, Painesville, Ohio

Ten Dyke's Blueberry Farm, Grand Junction, Mich.

E. W. Townsend Sons, Salisbury, Md.

Vienna Nursery, Vienna, Ill.

Walter Brothers, Judsonia, Ark.

Waynesboro Nurseries, Waynesboro, Va.

West Hill Nurseries, Fredonia, N.Y.

T. B. West & Son, Perry, Ohio

AMERICAN FRUIT GROWER

FREE Big, New 125th Year Jubilee Book
Prize Fruits — Shrubs — Roses
Send for it. This great Fruit Book also shows and tells about the world-famous BURBANK JULY PRIZE Peach (New, U. S. Pat.), brilliant red-and-gold freestone, on the market at Premium Prices 20 days before the first apples. HALBERTA GIANT (World's First Patented Peach)—new exclusive fruit, JONARED and STAYMARED—sold only by Stark—new Profit apples, and ornamental varieties—sold only by Stark.

Get Free Trees Offer—Also FREE Book on Planting Plans

We will also send details of our Offer of Free Trees to Stark customers—also FREE book on Home-Orchard Profit Guide book on landscaping and beautifying your home-grounds. Mail Coupon NOW.

STARK 125TH Year Jubilee Book

STARK Nurseries Box B-01, Louisiana, Mo.

Send FREE Jubilee Fruit Book and Details of Free Trees Offer.

I may plant Trees, Shrubs, Roses. (Number)

Check here for FREE Book on Beautifying your Home-Grounds.

Name St. or R. F. D. P. O.

If you are interested in selling Stark trees for FREE details of our NEW Liberal Weekly INCOME PLAN for Salesmen

NUT TREES: List includes Black walnut, Heartnut, English walnut, Filbert, Chestnut, Hickory, and Cherry trees.

(descriptive catalog free)

44 years growing trees.

J. F. JONES NURSERIES Dept. A-641 Lancaster, Pa.



A COMPLETE LINE OF
NURSERY STOCK

Direct to the planter at rock bottom prices. The best in Strawberries, Blackberries, Raspberries, Boysenberry, Blueberries, Grape Vines, Fruit and Ornamental Trees, Evergreens, Roses, Perennials and Flowering Bulbs. Write for our free catalog.

THE ACKERMAN NURSERIES

Box AF, Bridgman, Mich.

94 Years Of SERVICE

Proven dependability for your supply of fruit—same year—leading fruit stock. J. F. JONES NURSERIES Dept. A-641 Lancaster, Pa.

ILGENFRITZ MONROE NURSERY

Strawberry Plants

Millions of Yellow Free Blakemore, Aroma, and Missionary. All other leading varieties.

All plants New Ground Grown and have passed inspection. Satisfaction Guaranteed.

John Lightfoot, Birchwood, Tenn.

STRAWBERRIES PAY

Allen's 1941 Berry Book Describes Best Methods: Plants, Varieties: Shipping Season Nov. 1 to May 1.

COPY FREE WRITE TODAY

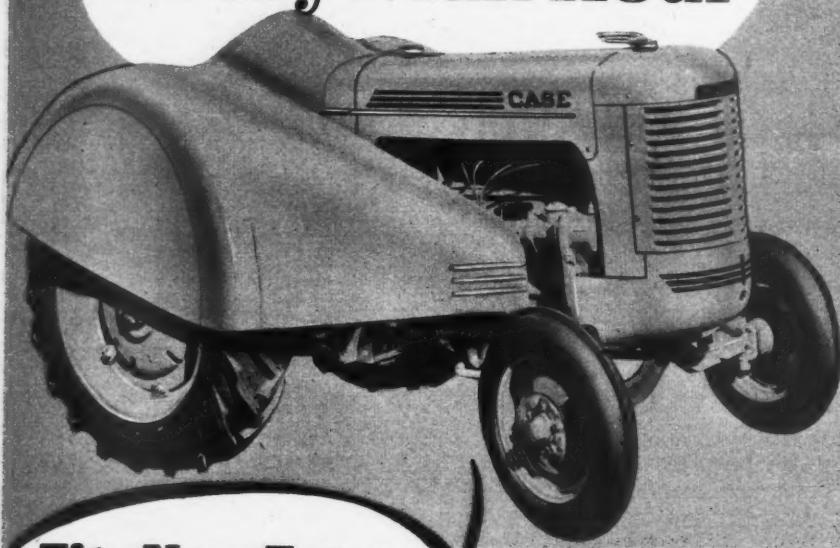
THE W. F. ALLEN CO.

22 Evergreen Ave., Salisbury, Md.

PAGE 33



New Fruit Power Makes the Most of Every Man Hour



**Fits New Future
in Fruit**

Of course there's a future in fruit... for men who put up a finer pack and who produce it at lower cost. And here's new power to help you do just that... to do your tree-tending more thoroughly, more promptly... and do it with less man-power.

Until you settle into the roomy, deep-cushioned seat of this Case "SO" tractor and take hold of its controls, you'll never know how handy, how comfortable orchard power can be. Only after you actually work with the "SO" would you believe it possible to cover so many acres with a 2-plow tractor and still feel fresh and fit at the end of the day.

A brand-new Case engine brings you the same lugging, tugging power you have come to expect from a Case, but now smoother, more flexible than ever. The "SO" pulls just as strong,

just as steady below half-speed as at full speed. With its wide-range governor control, its new toe-touch assisting brakes, and the famous Case full-swinging, self-locking drawbar, you can make short turns with full load and seldom or never shift gears or touch the clutch. New anti-friction finger-touch steering with no-play linkage is easier than ever. Spinner knob aids fast one-hand turning.

In the "SO" you get four gears forward—three speeds to take full advantage of traction weight and engine power with every implement and in every condition... plus a fast fourth speed for hauling and for quick moves from job to job. You get a centered power take-off at the right height for operating a spray rig. See the "SO," also the latest in orchard implements, at your Case dealer's now. See how much easier orchard work can be!

10 New Tractors . . . 3 Sizes for Orchards

Other orchard models are the new 1-2 plow "VO" and the 3-plow "DO," all with 4 speeds forward and Fuel-Miser carburetion. Also all-purpose type and standard four-wheelers in sizes up to 4-5 plow.

Mail This . . If You Want to Grow Better Fruit with Less Work

It pays to know what's new in orchard power and implements. Mark below items that interest you; mail to J. I. Case Co., Dept. F-12, Racine, Wis., or nearest branch.

<input type="checkbox"/> 2-Plow "SO" Tractor	<input type="checkbox"/> Orchard Tractor Plows
<input type="checkbox"/> 3-Plow "DO" Tractor	<input type="checkbox"/> Offset & Tandem Disk Harrows
<input type="checkbox"/> 1-2 Plow "VO" Tractor	<input type="checkbox"/> Spring-Tooth Harrows

Name _____

Address _____

Fruit Acreage _____

AMERICAN FRUIT GROWER

FENCING AND TRELLISES

Augers, Post Hole

Brown Fence & Wire Co., Cleveland, Ohio
Iwan Bros., South Bend, Ind.
Kitselman Bros., Muncie, Ind.

Diggers

Henry Disston & Sons, Inc., Philadelphia, Pa.
Iwan Bros., South Bend, Ind.
Kitselman Bros., Muncie, Ind.

Gates

American Steel & Wire Co., Cleveland, Ohio
Anchor Post Fence Co., Baltimore, Md.
Brown Fence & Wire Co., Cleveland, Ohio
Continental Steel Corp., Kokomo, Ind.
Cyclone Fence Co., Waukegan, Ill.
Interlocking Fence Co., Morton, Ill.
Kitselman Bros., Muncie, Ind.
Wickwire Spencer Steel Co., New York, N.Y.

Posts

Brown Fence & Wire Co., Cleveland, Ohio
Calumet Steel Co., Chicago, Ill.
Interlocking Fence Co., Morton, Ill.
Kitselman Bros., Muncie, Ind.
Page Steel & Wire Div., American Chain Co., Inc., Monessen, Pa.

Wire

American Steel & Wire Co., Cleveland, Ohio
Bethlehem Steel Co., Bethlehem, Pa.
Brown Fence & Wire Co., Cleveland, Ohio
Continental Steel Corp., Kokomo, Ind.
Interlocking Fence Co., Morton, Ill.
Kitselman Bros., Muncie, Ind.
Page Steel & Wire Div., American Chain Co., Inc., Monessen, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Republic Steel Corp., Chicago, Ill.
Wheeling Corrugating Co., Wheeling, W. Va.
Wickwire Spencer Steel Co., New York, N.Y.

IWAN

EARTH
AUGER

BORES HOLES FOR MANY
PURPOSES IN A NUMBER
OF DIAMETERS



Your trees can be nourished by
boring small holes to the roots
for deposit of fertiliser.
Fence in your orchard for protection
against intruders and your
live stock.
Made in sizes from 2 to 16
inches. Ask your dealer for the
GENUINE IWAN.
Write for complete information

IWAN BROTHERS, INC.

1500 PRAIRIE AVE., SOUTH BEND, IND.

FROST PROTECTION

Engines

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Brennan Motor Mfg. Co., Syracuse, N.Y.
Caterpillar Tractor Co., Peoria, Ill.
Continental Motors Corp., Detroit, Mich.
John Deere, Moline, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Hercules Motor Co., Canton, Ohio
International Harvester Co., Chicago, Ill.
Stover Mfg. & Engine Co., Freeport, Ill.
Waukesha Motor Co., Waukesha, Wis.
Wisconsin Motor Corp., Milwaukee, Wis.
Witte Engine Works, Inc., Kansas City, Mo.

Indicators, Frost Alarm

W. R. Ames Co., San Francisco, Calif.
Thwing Instrument Co., Philadelphia, Pa.

Motors, Electric

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N.Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Orchard Heaters

American Can Co., New York, N.Y.
W. R. Ames Co., San Francisco, Calif.
Anderson Incinerator Works, Chicago, Ill.
California Orchard Heater Co., Pomona, Calif.
Kittle Mfg. Co., Los Angeles, Calif.
National-Riverside Co., Riverside, Calif.
Scheu Products Co., Ltd., Upland, Calif.

Torches, Lighting

W. R. Ames Co., San Francisco, Calif.

Wind Machines

Conveyor Co., Inc., Huntington Park, Calif.
Jackson Iron Works, Huntington Park, Calif.
Towt Co., Glendale, Calif.

JUNE, 1941

CASE

TILLAGE EQUIPMENT



Basin Listers

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 B. F. Avery & Sons Co., Inc., Louisville, Ky.
 J. I. Case Co., Racine, Wis.
 Chase Plow Co., Lincoln, Nebr.
 John Deere, Moline, Ill.
 International Harvester Co., Chicago, Ill.
 Massey-Harris Co., Racine, Wis.
 Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
 Oliver Farm Equipment Sales Co., Chicago, Ill.

Brush Rakes

Dempster Mill Mfg. Co., Beatrice, Nebr.
 J. D. Tower & Sons Co., Mendoza, Ill.
 Wyatt Mfg. Co., Salina, Kans.

Cultivators and Harrows

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 Athens Plow Co., Athens, Tenn.
 Barker Mfg. Co., David City, Nebr.
 Bradley Mfg. Works, Bradley, Ill.
 J. I. Case Co., Racine, Wis.
 Centaur Tractor Corp., Greenwich, Ohio
 Cleveland Tractor Co., Cleveland, Ohio
 Cutaway Harrow Co., Higganum, Conn.
 John Deere, Moline, Ill.
 Dempster Mill Mfg. Co., Beatrice, Nebr.
 Farm Tools, Inc., Mansfield, Ohio
 A. B. Farquhar Co., Ltd., York, Pa.
 Ferguson-Sherman Mfg. Corp., Dearborn, Mich.
 Fresno Agricultural Works, Fresno, Calif.
 General Implement Co., Cleveland, Ohio
 Handy Harrow Co., Peoria, Ill.
 Hussey Plow Co., N. Berwick, Maine
 International Harvester Co., Chicago, Ill.
 Massey-Harris Co., Racine, Wis.
 Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
 Nash-Acme Harrow Co., Haddonfield, N.J.
 Ohio Cultivator Co., Bellevue, Ohio
 Oliver Farm Equipment Sales Co., Chicago, Ill.
 J. D. Tower & Sons Co., Mendoza, Ill.
 Town Mfg. Co., Santa Ana, Calif.
 Wiard Plow Co., Batavia, N.Y.

Drills, Seed

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 John Deere, Moline, Ill.
 A. B. Farquhar Co., Ltd., York, Pa.
 International Harvester Co., Chicago, Ill.
 Massey-Harris Co., Racine, Wis.
 Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
 Oliver Farm Equipment Sales Co., Chicago, Ill.
 Ontario Drill Co., East Rochester, N.Y.
 Peoria Drill & Seeder Co., Peoria, Ill.

Explosives

Atlas Powder Co., Wilmington, Del.
 E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.
 Hercules Powder Co., Wilmington, Del.

Fertilizer Distributors

J. I. Case Co., Racine, Wis.
 Cyclone Seeder Co., Urbana, Ill.
 John Deere, Moline, Ill.
 Farm Tools, Inc., Mansfield, Ohio
 A. B. Farquhar Co., Ltd., York, Pa.
 Frick Company, Waynesboro, Pa.
 Hampshire Implement Co., Hatfield, Mass.
 International Harvester Co., Chicago, Ill.
 Massey-Harris Co., Racine, Wis.
 New Idea Co., Inc., Coldwater, Ohio
 Ohio Cultivator Co., Bellevue, Ohio
 Oliver Farm Equipment Sales Co., Chicago, Ill.
 Ontario Drill Co., E. Rochester, N.Y.
 Smith Agricultural Chemical Co., Columbus, Ohio
 Andrew Wilson, Inc., Springfield, N.J.

Hoes, Grape and Berry

John Deere, Moline, Ill.

Mowers

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 B. F. Avery & Sons Co., Louisville, Ky.
 J. I. Case Co., Racine, Wis.
 Centaur Tractor Corp., Greenwich, Ohio
 John Deere, Moline, Ill.
 Farm Tools, Inc., Mansfield, Ohio
 Huber Mfg. Co., Marion, Ohio
 International Harvester Co., Chicago, Ill.
 Massey-Harris Co., Racine, Wis.
 Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
 Ohio Cultivator Co., Bellevue, Ohio
 Oliver Farm Equipment Sales Co., Chicago, Ill.

JUNE, 1941

Here's an ace-in-the-hole for you . . . an idea that can take your fruit profits over the top . . . quick!

Get an Allis-Chalmers MODEL B TRACTOR and give your grove or berry patch the "going over" of its life. You can mow weeds, plow, cultivate, furrow-irrigate or haul prunings — do dozens of jobs that you never thought of doing before with a tractor. You can touch the starter button and run an errand on a cupful of gas, where it would break you up in business to use a big tractor. The Model B's smooth speedlining is easy on low-hanging branches. Big air tires and the "power-flash" governor take you through where most wheel tractors fear to tread. The Model B engine with *water-cooled* removable cylinder liners and cam-honed pistons is as up-to-date as a new automobile engine. See the full line of matched Model B implements at your Allis-Chalmers dealers—send coupon today!

ALLIS-CHALMERS

ALLIS-CHALMERS MFG. CO.
 Dept. 16, Tractor Division,
 Milwaukee, Wis.
 Gentlemen: Let's have the whole story.
 Send free catalogs checked. I have _____
 acres in _____ County.

Model B Tractor
 Model B Implements
 Model M Orchard Crawler
 Brenneis Heavy Duty Implements

Name _____ R.F.D. _____

Town _____ State _____

WHY WE DON'T TALK ABOUT NUTS AND BOLTS

Where does it get you?

Both light and heavy

Ten-year sod or garden-patch cultivating

 Nuts and bolts are nice. And necessary. They make a machine work. But they don't make it *perform*. What makes a machine perform is an *idea*.

Our idea is that a farming machine ought not to be so highly specialized that a man has to do his farming to fit his machine.

Where does it get you to have a machine built specially to do light work economically, but without the guts to do your heavy work?

Or to invest in one that is so hopped up in power and weight in order to do heavy work that it is too costly to run for light work and chores?

 Our idea is that you ought to be able to do both light and heavy work, economically, with one and the same machine.

That's where the Ferguson System comes in. It's an idea bigger than all the nuts and bolts in the world. It gives this light machine the capacity for *very heavy* work with a power plant that is really economical to run.

That's why, when we ask you for the chance to demonstrate, we don't put any strings on it. We say: You pick the spot, whether it's breaking ten-year sod or garden-patch cultivating.

 We don't say: Surely one of these many special machines we have to offer will fit what you are doing, this year.

We do say: The Ford Tractor with Ferguson System will do *all* the kinds of work you have to do *this year*, and *all* that you may want to do *next year*. And it will do them so cheaply that you can make money.

This can be proved. You name the spot.

The Ford Tractor with Ferguson System is sold nationally by the Ferguson-Sherman Manufacturing Corporation, Dearborn, Mich., and distributed through dealers in every part of the country.



TILLAGE EQUIPMENT

Plows, Disc and Moldboard

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Bucher & Gibbs Plow Co., Philadelphia, Pa.
J. I. Case Co., Racine, Wis.
Centaur Tractor Corp., Greenwich, Ohio
Cutaway Harrow Co., Higganum, Conn.
John Deere, Moline, Ill.
Empire Plow Co., Cleveland, Ohio
Farm Tools, Inc., Mansfield, Ohio
Ferguson-Sherman Mfg. Corp., Dearborn, Mich.
Frick Company, Waynesboro, Pa.
International Harvester Co., Chicago, Ill.
Massey-Harris Co., Racine, Wis.
Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
Ohio Cultivator Co., Bellevue, Ohio
Oliver Farm Equipment Sales Co., Chicago, Ill.
Wayne Agri. Works, Inc., Goldsboro, N.C.

Radiator Cleaners

Hygienic Products Co., Canton, Ohio

Sowers, Hand Seed

Cyclone Seeder Co., Urbana, Ind.

Stump Pullers

Hercules Mfg. Co., Centerville, Iowa
Kirstin Co., Escanaba, Mich.
Puljack Mfg. Corp., Englewood, N.J.

Tillers, Rotary

Ariens Co., Brillion, Wis.

CUT LABOR COSTS - and GROW BETTER PLANTS

+++ with
ARIENS TILLER.



In one operation you prepare a completely pulverized levered bed—no plow sole—no hard soil clumps.

Three models to meet your requirements. Ideal for straw, berry, raspberry, fruit growers. Write for name of nearest distributor, and latest catalog.

ARIENS COMPANY

Box 704

Tires, Pneumatic

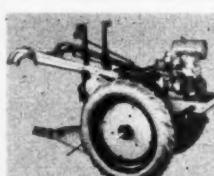
Firestone Tire & Rubber Co., Akron, Ohio
Fisk Tire Plant Division of U. S. Tire Dealers Corp., Chicopee Falls, Mass.
General Tire & Rubber Co., Akron, Ohio
Gillette Rubber Co., Eau Claire, Wis.
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Inc., Akron, Ohio
Kelly-Springfield Tire Co., Cumberland, Md.
Lee Tire & Rubber Corp., Conshohocken, Pa.
Seiberling Rubber Co., Akron, Ohio
United States Rubber Co., New York, N.Y.

Tractor Chains

American Chain Div., American Chain & Cable Co., Inc., Bridgeport, Conn.
Baldwin-Duckworth Chain Corp., Springfield, Mass.
Chain Belt Co., Milwaukee, Wis.
Columbus-McKinnon Chain Co., Tonawanda, N.Y.

BREADY "HC" MODEL TRACTOR

A rugged tractor with ample power to handle the toughest jobs.



Powered with a 4 H. P. Wisconsin Motor and equipped with automotive type transmission (3 speed forward and reverse) this tractor will handle jobs that are stalling tractors of similar size. The mercury clutch, similar to the fluid drive in the automobile, cushions the load relieving undue strain on the motor and driving mechanism. You will be surprised at the ease with which it handles.

This tractor has 22-inch clearance and equipment consists of a 9-inch plow with 12-inch coulter disc, 6 blade Aeme harrow and 6 shovel cultivator.

Write for descriptive folder.

BREADY TRACTOR AND IMPLEMENT CO.
261 Aurora Rd. Solon, Ohio

TILLAGE EQUIPMENT

Tractors, Continuous Tread

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Cleveland Tractor Co., Cleveland, Ohio
International Harvester Co., Chicago, Ill.

Tractors, Garden

S. L. Allen & Co., Inc., Philadelphia, Pa.
Allied Motors Corp., Minneapolis, Minn.
American Farm Machinery Co., Minneapolis, Minn.
Boleens Mfg. Co., Port Washington, Wis.
Brendy Tractor Co., Solon, Ohio
Centaur Tractor Corp., Greenwich, Ohio
John Deere, Moline, Ill.
Gravely Motor Plow & Cult. Co., Dunbar, W. Va.
New Beaman Tractor Co., Minneapolis, Minn.
Ohio Cultivator Co., Bellevue, Ohio
Pioneer Mfg. Co., West Allis, Wis.
Pond Garden Tractor Co., Ravenna, Ohio
Shaw Mfg. Co., Galesburg, Ill.
Simplicity Mfg. Co., Port Washington, Wis.
Standard Engine Co., Minneapolis, Minn.
Universal Mfg. Co., Indianapolis, Ind.
Walsh Tractor Co., Minneapolis, Minn.

Tractors, Orchard and Grove

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
J. I. Case Co., Racine, Wis.
Caterpillar Tractor Co., Peoria, Ill.
Cleveland Tractor Co., Cleveland, Ohio
John Deere, Moline, Ill.
Fate-Roof-Heath Co., Plymouth, Ohio
Ferguson-Sherman Mfg. Corp., Dearborn, Mich.
Ford Motor Co., Dearborn, Mich.
Huber Mfg. Co., Marion, Ohio
International Harvester Co., Chicago, Ill.
Massey-Harris Co., Racine, Wis.
Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
Oliver Farm Equipment Sales Co., Chicago, Ill.

Tractors, Wheel

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
J. I. Case Co., Racine, Wis.
Centaur Tractor Corp., Greenwich, Ohio
Cleveland Tractor Co., Cleveland, Ohio
John Deere, Moline, Ill.
Fate-Roof-Heath Co., Plymouth, Ohio
Ferguson-Sherman Mfg. Corp., Dearborn, Mich.
Ford Motor Co., Dearborn, Mich.
Frick Company, Waynesboro, Pa.
Huber Mfg. Co., Marion, Ohio
International Harvester Co., Chicago, Ill.
Massey-Harris Co., Racine, Wis.
Minneapolis-Moline Power Implement Co., Minneapolis, Minn.
Oliver Farm Equipment Sales Co., Chicago, Ill.

You can make more money and keep your work on schedule with CLETRAC TRU-TRACTION*



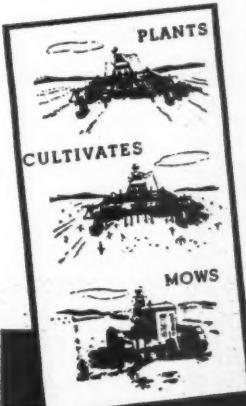
* **TRU-TRACTION** means power on both tracks at all times.

HAVENT you found that weather and soil conditions are what hold up your farm work? And haven't you often wished for a tractor that would keep your work *on schedule* in spite of these conditions?

The answer is easy and has been found by thousands of farmers — it's Cletrac Tru-Traction. Tru-Traction is an *exclusive* Cletrac feature that you can get in no other tractor — but it's a feature that ends costly hold-ups in

farm work — whether plowing, planting, cultivating or mowing. With Tru-Traction you can make more money, because you work *all* the field without going around soft spots — you get up and down hills easily — you do not pack the soil, which increases your yield.

Tru-Traction is just one of the exclusive operating features that has made Cletrac Model HG such a favored tractor. The choice of three widths — 31-inch for orchard and narrow rows — 42-inch for regular farm use and 68-inch for general row crops — gives you the width that suits your conditions best. A full line of attached tools — planters, cultivators, weeder, mowers, sprayers, etc. — is available for the Cletrac HG. Remember — no other tractor can give you Tru-Traction. Go to your nearest Cletrac dealer and see how a Cletrac Tru-Traction Outfit will put more money in your pocket!



THE CLEVELAND TRACTOR CO.
CLEVELAND, OHIO

WRITE NAME AND ADDRESS HERE AND MAIL FOR MORE INFORMATION ON THE CLETRAC NO. 1 FARM ACRES
YOU MAY PASTE THIS COUPON ON A POST CARD.

COMMISSION MERCHANTS AND MARKETING AGENCIES

Commission Merchants

American Fruit Growers, Inc., Pittsburgh, Pa.
Andrews Bros., Detroit, Mich.
Atlantic Commission Co., Inc., New York, N.Y.
Brown and Lee, Kansas City, Kans.
Cavalier, Gulling, Wilson Co., Cleveland, Ohio
Chandler-Allen Co., Chicago, Ill.
Cicardi Bros., St. Louis, Mo.
A. T. Conord & Bros., New York, N.Y.
Wm. M. Fisher & Sons Co., Boston, Mass.
Gentile Bros. Co., Cincinnati, Ohio
S. A. Gerrard Co., Cincinnati, Ohio
L. Gillarde Co., Chicago, Ill.
C. C. Hess-Watson Co., New York, N.Y.
G. A. Marsh Co., St. Louis, Mo.
McFadden Distributing Co., Detroit, Mich.
Pacific Fruit & Produce Co., Portland, Ore.
C. H. Peacock, Philadelphia, Pa.
H. J. Riebe, Indianapolis, Ind.
Martin Rin's Sons, Inc., Cleveland, Ohio
H. Rubenstein & Co., Milwaukee, Wis.
Franklin F. Schafer, Buffalo, N.Y.
Schley Brothers, Baltimore, Md.
Schwartz Brothers, Detroit, Mich.
Arthur Serra & Co., Chicago, Ill.
L. Singer & Sons Produce Co., Kansas City, Mo.
F. M. Small Co., Sacramento, Calif.
Stevens Brothers, Baltimore, Md.
Sweeney Lyner & Co., Boston, Mass.
Chas. Taylor & Son, Boston, Mass.
Terminal Fruit Co., Boston, Mass.
C. H. Weaver Co., Chicago, Ill.
Wick & Bro., Philadelphia, Pa.

Marketing Agencies

American Fruit Growers, Inc., Pittsburgh, Pa.
Atlantic Commission Co., Inc., New York, N.Y.

JUNE, 1941

BOTH BARRELS

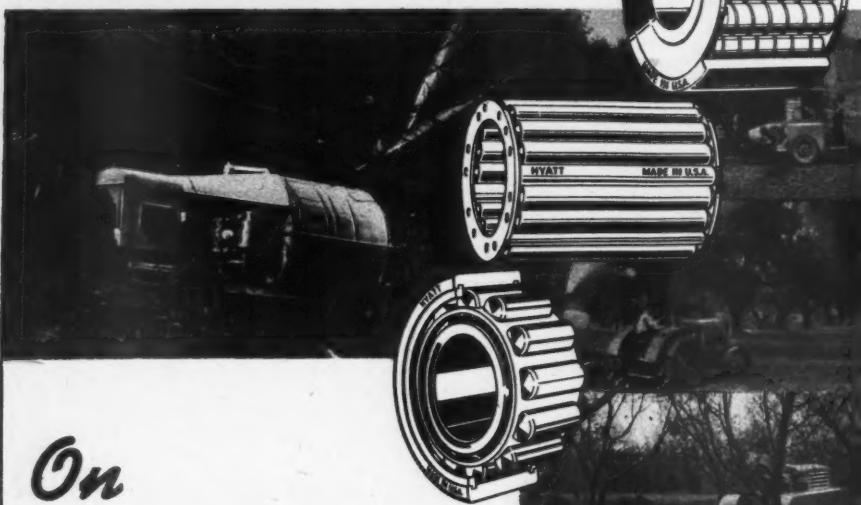
Here's a double-barreled sales organization
Yes, sir... we put both barrels on the job when it comes to handling your crop. First: Our AFG shipping point sales service, followed right up with aggressive market representation through American National Cooperative Exchange. Let us show you how this double-barreled selling program fits your sales problems. Get in touch with your local AFG office today.

AMERICAN FRUIT GROWERS INC.
EXECUTIVE OFFICE PITTSBURGH, PA.

AMERICAN FRUIT GROWER

A. H. C. E.
NATIONAL COOPERATIVE EXCHANGE
FRESH FRUITS AND VEGETABLES

ORCHARD WORK RUNS SMOOTHER



On

HYATT ROLLER BEARINGS

Leading builders of power sprayers, dusters, tractors, trucks and other orchard machinery use Hyatt Roller Bearings in their equipment for smoother, efficient, care-free and longer-lived operation.

→ LOOK FOR DEPENDABLE HYATTS
IN THE SPECIFICATIONS OF
THE MACHINE YOU BUY...
IT PAYS!

HYATT BEARING DIVISION, GENERAL MOTORS SALES CORP.
HARRISON, N.J. CHICAGO DETROIT PITTSBURGH SAN FRANCISCO



IRRIGATION AND DRAINAGE

Couplings, Pipe

W. R. Ames Co., San Francisco, Calif.
Champion Corp., Hammond, Ind.
Chicago Metal Mfg. Co., Chicago, Ill.

Ditchers

National Equipment Corp., Milwaukee, Wis.
Owensboro Ditcher & Grader Co., Owensboro, Ky.
Standard Steel Works, Los Angeles, Calif.

Electric Plants

Delco Appliance Div., General Motors Sales Corp., Rochester, N.Y.
General Electric Co., Schenectady, N.Y.
Kohler Co., Kohler, Wis.
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.

ECONOMICAL IRRIGATION PAYS
LET IRRIGATION HOSE HELP SAVE YOUR CROPS
from dry weather. Efficient and most economical means
of distributing irrigation water. Write for literature on
well made hose that does not decay. **MANTLE & MANTLE**,
P. O. Box 107, Painesville, Ohio.

PAGE 38

Hose, Eyelet

Mantle & Mantle, Painesville, Ohio

Hose, Metal

W. R. Ames Co., San Francisco, Calif.
Champion Corp., Hammond, Ind.
Chicago Metal Mfg. Co., Chicago, Ill.
Waterseal Couplings, Ltd., Los Angeles, Calif.

Hose, Porous

Crane Co., Chicago, Ill.
Mantle & Mantle, Painesville, Ohio
White Showers, Inc., Detroit, Mich.

Hose, Rubber

Boston Woven & Rubber Hose Co., Cambridge, Mass.
Broadway Rubber Mfg. Co., Louisville, Ky.
Electric Hose & Rubber Co., Wilmington, Del.
Firestone Tire & Rubber Co., Akron, Ohio
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Akron, Ohio
Quaker Rubber Corp., Philadelphia, Pa.

AMERICAN FRUIT GROWER

Republic Rubber Div., Lee Rubber & Tire Corp.,
Youngstown, Ohio
United States Rubber Co., New York, N.Y.

Pipe

W. R. Ames Co., San Francisco, Calif.
A. M. Byers Co., Pittsburgh, Pa.
Champion Corp., Hammond, Ind.
Chicago Metal Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Frick Company, Waynesboro, Pa.
March Automatic Irrigation Co., Muskegon, Mich.
National Tube Co., Pittsburgh, Pa.
Parma Water Lifter Co., Parma, Idaho
Skinner Irrigation Co., Troy, Ohio
White Showers, Inc., Detroit, Mich.

Pipe, Portable Irrigation

W. R. Ames Co., San Francisco, Calif.
Champion Corp., Hammond, Ind.
Chicago Metal Mfg. Co., Chicago, Ill.

IRRIGATE!

PORTABLE SURFACE PIPE

Flood, Furrow, or Peri-O-Rain Sprinkling. 8 lbs. spreads 35 ft. 3" up to 200, 4" up to 450 ft. 1 inch, or 2 inch, per hour. Even distribution. Describe problem. Illustrated folder on request.

W. R. AMES CO. 150 Hooper Street
San Francisco, California

Pumps

American-Marsh Pumps, Inc., Battle Creek, Mich.
American Well Works, Aurora, Ill.
John Bean Mfg. Co., Lansing, Mich.
Berkeley Pump Corp., Berkeley, Calif.
Campbell & Budlong Machine Works, San Jose, Calif.

Crane Co., Chicago, Ill.
Dayton Pump & Mfg. Co., Dayton, Ohio
Decatur Pump Co., Decatur, Ill.
Deming Co., Salem, Ohio

Dempster Mill Mfg. Co., Beatrice, Nebr.
Domestic Engine & Pump Co., Shippensburg, Pa.
Duro Co., Dayton, Ohio

Fairbanks, Morse & Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Goulds Pumps, Inc., Seneca Falls, N.Y.

Kewanee Private Utilities Co., Kewanee, Ill.
March Automatic Irrigation Co., Muskegon, Mich.
Micro-Westco, Inc., Bettendorf, Iowa

F. E. Myers & Bro. Co., Ashland, Ohio
Novo Engine Co., Lansing, Mich.
Parma Water Lifter Co., Parma, Idaho
Peerless Pump Co., Massillon, Ohio

Pomona Pump Co., Pomona, Calif.
Trupar, Inc., Dayton, Ohio
Victor Equipment Co., Los Angeles, Calif.
Weinman Pump Mfg. Co., Columbus, Ohio

Worthington Pump & Machinery Corp., Holyoke, N.J.

Rams, Hydraulic

Deming Co., Salem, Ohio
Dempster Mill Mfg. Co., Beatrice, Nebr.
Goulds Pumps, Inc., Seneca Falls, N.Y.
March Automatic Irrigation Co., Muskegon, Mich.
Rife Hydraulic Engine Mfg. Co., New York, N.Y.
Rife Ram & Pump Works, Waynesboro, Va.

Sprinkler Systems

W. R. Ames Co., San Francisco, Calif.
Champion Corp., Hammond, Ind.
Chicago Metal Mfg. Co., Chicago, Ill.
March Automatic Irrigation Co., Muskegon, Mich.

Perfection Sprinkler Co., Plymouth, Mich.
Skinner Irrigation Co., Troy, Ohio
White Showers, Inc., Detroit, Mich.

Valves and Fittings

W. R. Ames Co., San Francisco, Calif.
E. C. Atkins & Co., Indianapolis, Ind.
Central Brass Mfg. Co., Cleveland, Ohio
Chicago Metal Mfg. Co., Chicago, Ill.

Crane Co., Chicago, Ill.
Dempster Mill Mfg. Co., Beatrice, Nebr.
Frick Company, Waynesboro, Pa.

B. F. Goodrich Co., Akron, Ohio
March Automatic Irrigation Co., Muskegon, Mich.

F. E. Myers & Bro. Co., Ashland, Ohio
Northwest Irrigation Co., Antigo, Wis.

Quaker Rubber Corp., Philadelphia, Pa.
Rife Hydraulic Engine Mfg. Co., New York, N.Y.

Skinner Irrigation Co., Troy, Ohio
Sprayer Supply Mfg. Co., Grand Rapids, Mich.

Edwin C. Tyson, Flora Dale, Pa.

**MARTIN HUMMER
ORCHARD WORKER**

Every fruit grower, large or small, should have a MARTIN HUMMER. Mr. Martin, Vice President of the Fruit Growers of America, has in his own orchard, a fast tool for scientific Row Cultivation, Tilling, Ditching, Irrigation, Spray Pipelines, Trimming, Digging, Cleaning Fences.

10 DAYS TRIAL
Use a HUMMER 10 days in your orchard and if you are not satisfied with it, we'll refund every cent.

Steel Blade Extension works close to trunks as desired. Quickly attached or taken off.

Write for free illustrated folder
Owensboro Ditcher & Grader Co., Inc., Box 18, Owensboro, Ky.

JUNE, 1941

**STOP
BRUISES & STEM
PUNCTURES**

**SAVE
FRUIT AND
PROFIT**
with the
original

"Wenatchee"
PATENTED
FRUIT PICKING BAGS

Endless steel frame keeps bag open, fits body comfortably. Adjusts to $\frac{1}{2}$ bu. capacity for tender fruits . . . opens to 1 bu. capacity when desired. Empties easily from bottom. Leather-reinforced where the wear comes. Belt strap. Wide adjustable web suspenders. Specially built release snap.

ASK YOUR ORCHARD SUPPLY DEALER OR

SCHEFFER & ROSSUM CO.
MANUFACTURERS ST. PAUL, MINN.

Goshen Churn & Ladder Co.
Goshen, Indiana

NOTED for SAFETY
Made to Provide
Greatest Steadiness

Pointed-leg hinged. Riveted
non-split leg construction.
Steps rodded. Lengths 4'
to 14'. Write for prices.

Success Fruit Pickers

Less equipment, less waste, less broken bones. Pear picker leaves stems on fruit. Pear picker (without pole) sent prepaid in U.S. for 5 names and \$1.35.

Success Fruit Picker Manufacturer
CLINT. TEXAS

"CYCLONE"
FRUIT PICKING BAGS
AND BUCKETS

REDUCE BRUISING AND
INCREASE SPEED

THE CYCLONE SEEDER CO., CENTRAL BLDG.
URBANA, IND.

RICH LADDERS

Light weight . . . SAFE . . . special construction features . . . cadmium plated hardware . . . will outlast two or three ordinary ladders . . . see your dealer or write.

THE RICH LADDER & MFG. CO.
1025 Depot Street Cincinnati, Ohio

USE
WELLS and WADE
PICKING BUCKETS
and have no bruised fruit
MANUFACTURED BY
WELLS AND WADE
NET AT WILLE, WASH.

PICKING

Bags

John Bacon Inc., Gasport, N.Y.
Barker Mfg. Co., Honeoye Falls, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Burch Mfg. & Sheet Metal, Lawrence, Mich.
Corona Clipper Co., Corona, Calif.
Cyclone Seeder Co., Urbana, Ind.
Fulton Bag & Cotton Mills, Atlanta, Ga.
Hardie Mfg. Co., Portland, Ore.
Philadelphia Blanket Co., Inc., Philadelphia, Pa.
Scheffer & Rossum Co., St. Paul, Minn.
M. D. Smith Tent & Awning Co., Atlanta, Ga.
The Taylor Grader, Anna, Ill.
Townsend Co., Lake Wales, Fla.
Edwin C. Tyson, Flora Dale, Pa.
Wells & Wade, Wenatchee, Wash.

Baskets

John Bacon Inc., Gasport, N.Y.
Berlin Fruit Box Co., Berlin Heights, Ohio
Frank L. Deane & Son, Benton Harbor, Mich.
Edgerton Mfg. Co., Plymouth, Ind.
Scheffer & Rossum Co., St. Paul, Minn.
Edwin C. Tyson, Flora Dale, Pa.

Buckets

Burch Mfg. & Sheet Metal, Lawrence, Mich.
Cyclone Seeder Co., Urbana, Ind.
Hill Top Orchards & Nurseries, Hartford, Mich.
Scheffer & Rossum Co., St. Paul, Minn.
Wells & Wade, Wenatchee, Wash.

Clippers, Fruit

Bartlett Mfg. Co., Detroit, Mich.
Corona Clipper Co., Corona, Calif.
Henry Disston & Sons, Philadelphia, Pa.
Harvey Machine Co., Los Angeles, Calif.
A. M. Leonard & Son, Piqua, Ohio
J. Wiss & Sons Co., Newark, N.J.

Crates, Field

Berlin Fruit Box Co., Berlin Heights, Ohio
Berryville Basket Co., Inc., Berryville, Va.
General Box Co., Chicago, Ill.
Gideon-Anderson Lumber Co., St. Louis, Mo.
Marinette & Menominee Box Co., Marinette, Wis.
Maxwell Brothers, Inc., Chicago, Ill.
Mell Lumber Co., Philadelphia, Pa.
New Albany Box & Basket Co., New Albany, Ind.
New England Box Co., New York, N.Y.
Paducah Box & Basket Co., Paducah, Ky.
Rathborne, Hair & Ridgway Co., Chicago, Ill.
Smeed Box Co., Cleveland, Ohio
Edwin C. Tyson, Flora Dale, Pa.

Ladders

Aluminum Ladder Co., Tarentum, Pa.
John Bacon Inc., Gasport, N.Y.
Bauer Mfg. Co., Wooster, Ohio
Benton Ladder Co., Jackson, Mich.
Goshen Churn & Ladder Co., Goshen, Ind.
Heider Mfg. Co., Carroll, Iowa
Inland Mfg. Co., Oakland, Calif.
Larson Ladder Co., San Jose, Calif.
Los Angeles Ladder Co., Los Angeles, Calif.
Michigan Ladder Co., Ypsilanti, Mich.
H. L. Patton, Jewett, Ohio
Rich Pump & Ladder Co., Cincinnati, Ohio
Safety Ladder Co., E. Hartford, Conn.
Tilly Ladder Co., Watervliet, N.Y.
George C. Topping Ladder Co., Marion, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Zoss Ladder & Mfg. Co., Portland, Ore.

Pickers, Fruit

Bartlett Mfg. Co., Detroit, Mich.
Success Fruit Picker Co., Clint, Texas

Straps

John Bacon Inc., Gasport, N.Y.

LADDERS Especially for
PICKING BAGS Several styles to
PICKING STRAPS meet all needs
WE MAKE 'EM

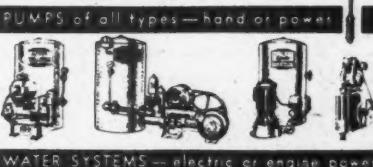
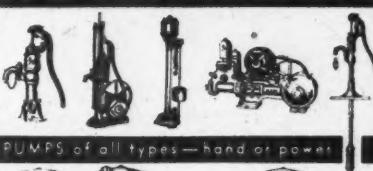
JOHN BACON, INC.
GASPORT, N. Y.

HEIDER 2 WAY STEP AND STRAIGHT
FRUIT LADDERS

New kind of ladder for spraying, pruning or picking fruit. Also furnished with STRAIGHT LEG and STRAIGHT TOP. ALL steps and rungs RODDED with $\frac{1}{4}$ " rod. Very rigid. Made in five sizes. Makes an ideal FBUT or general purpose ladder. HEIDER famous for Straight, Extension and Step Ladders, Extension Planks, Ladder Jacks, etc. Ask your dealer or write us.

HEIDER MANUFACTURING CO.
Box 511, Carroll, Iowa
AMERICAN FRUIT GROWER

MYERS -- the world's
Largest Line of PUMPS,
WATER SYSTEMS, SPRAYERS



You name it, Myers makes it — everything in pumps! Hundreds of styles and sizes — exactly the right pump for every need on the farm. Equipment famous for reliability and value — backed by complete dealer service. See your nearest Myers dealer now!

THE F. E. MYERS & BRO. CO.
587 Orange Street, Ashland, Ohio
Send free information on items checked and
name of your nearest dealer.

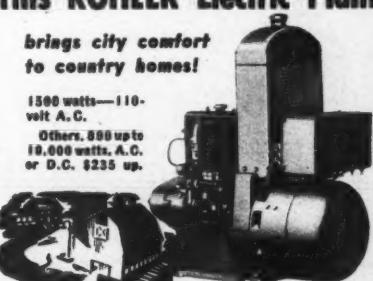
Water Systems	<input type="checkbox"/>	Centrifugal Pumps	<input type="checkbox"/>
Hand Pumps	<input type="checkbox"/>	Hand Sprayers	<input type="checkbox"/>
Power Pumps	<input type="checkbox"/>	Power Sprayers	<input type="checkbox"/>
Pump Jacks	<input type="checkbox"/>	Door Hangers	<input type="checkbox"/>
Sump Pumps	<input type="checkbox"/>	Hay Unloading Tools	<input type="checkbox"/>

Name _____
Address _____ 2GP1

This KOHLER Electric Plant

brings city comfort
to country homes!

1500 watts—110-
volt A.C.
Others, 500 up to
10,000 watts, A.C.
or D.C. \$235 up.



Wherever you are—farm, camp, lodge, cabin, filling station—you can enjoy the comforts and conveniences of dependable electric current. • Ample capacity for average lighting, pumping, radio, appliances, small tools. Easily installed—fully automatic—self-starting, self-stopping—sturdy, compact, quiet—economical. Investigate

MAIL COUPON TO KOHLER — TODAY

KOHLER OF KOHLER
ELECTRIC PLANTS
Planned Plumbing and Heating
KOHLER CO., Dept. AFG-6P
Kohler, Wisconsin . . . Please send
me information about Kohler Plants!

Name _____
Address _____



Get MAXIMUM Insulating Efficiency in Storage Rooms!

Basically mineral and virtually imperishable, J-M Rock Cork maintains its unusually high insulating effectiveness year after year. Easily applied, adaptable to every type of construction—its use offers the following advantages in fruit-storage rooms:

Unusual resistance to moisture infiltration—immunity to rot and decay—proof against termites—freedom from mold and bacteria—never absorbs or gives off odors.

As a result, J-M Rock Cork is efficiently, economically solving the storage-insulation problem for fruit growers everywhere. For details, write Johns-Manville, 22 E. 40th St., New York, N.Y.

JM Johns-Manville **ROCK CORK**

Low-temperature insulation for sheets and for pipe covering

UNITED'S B. B. BLOCK BAKED CORKBOARD INSULATION
PATENTED

Assures maximum insulation efficiency at minimum cost. Moisture-resistant, compact, lightweight, sanitary, structurally strong, flexible.

Write for particulars.

Literature on request

UNITED
CORK COMPANIES
WEST KEARNY, N.J.

FOR FRUIT STORAGE . . . IT PAYS TO SPECIFY

"Insulation by Armstrong"



If you want dependable protection for this year's crop, and crops for years to come, get insulation which is dependable—insulation which will effectively bar heat, resist moisture, and help control temperatures and humidities within proper storage ranges. You can count on this protection when you insulate with Armstrong's Corkboard.

For more than thirty-five years Armstrong engineers have been gathering the experience now at your disposal at "Headquarters." And this experience, plus the efficiency of Corkboard Insulation assures dependable, lasting storage installations. So before you plan to build your fruit storage, get the facts from Armstrong. Write now to Armstrong Cork Company, Building Materials Division, 924 Concord St., Lancaster, Pa.



ARMSTRONG CORK CO.
AMERICAN FRUIT GROWER

STORAGES



Blowers, Fans, Diffusers

American Blower Corp., Detroit, Mich.
Buffalo Forge Co., Buffalo, N.Y.
Carrier Corp., Syracuse, N.Y.
Clarage Fan Co., Kalamazoo, Mich.
Craine, Inc., Norwich, N.Y.
Frigidaire Div., General Motors Sales Corp.,
Dayton, Ohio
General Electric Co., Bloomfield, N.J.
Ilg Electric Ventilating Co., Chicago, Ill.
Master Fan Corp., Los Angeles, Calif.
Nash-Kelvinator Corp., Detroit, Mich.
Niagara Blower Co., Buffalo, N.Y.
Wolverine Blower Works, Grand Rapids, Mich.
Worthington Pump & Machinery Corp., Har-
rison, N.J.

Building Papers

Angier Corp., Framingham, Mass.
Sisal Kraft Co., Chicago, Ill.

Controlled Atmosphere Storage

AIR SCRUBBERS

E. G. Holmes & Son Ithaca Machine Shop,
Ithaca, N.Y.

GAS ANALYSIS APPARATUS

A. H. Thomas Co., Philadelphia, Pa.

Doors

Baker Ice Machine Co., Inc., Omaha, Nebr.
Craine, Inc., Norwich, N.Y.
Bernard Goeckeler Co., Pittsburgh, Pa.
Jamison Cold Storage Door Co., Hagerstown,
Md.
National Refrigerator Co., St. Louis, Mo.
Parker Ice Machine Co., Inc., San Bernardino,
Calif.
York Ice Machinery Corp., York, Pa.

Ducts, Air

Carrier Corp., Syracuse, N.Y.
L. O. Koven & Bro., Inc., Jersey City, N.J.
Mead-Penn Iron Works Co., Meadville, Pa.
Stover Steel Tank & Mfg. Co., Freeport, Ill.
Treadwell Construction Co., Midland, Pa.
Worthington Pump & Machinery Corp., Har-
rison, N.J.

Humidifiers

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N.Y.
Carrier Corp., Syracuse, N.Y.
Frick Company, Waynesboro, Pa.
Frigidaire Div., General Motor Sales Corp.,
Dayton, Ohio
General Electric Co., Bloomfield, N.J.
Ilg Electric Ventilating Co., Chicago, Ill.
Westinghouse Electric & Mfg. Co., E. Spring-
field, Mass.
Worthington Pump & Machinery Corp., Har-
rison, N.J.

Hydrometers

Eimer & Amend, New York, N.Y.
Fleishhauer, Fr., & Son, Hollis, N.Y.
H-B Instrument Co., Philadelphia, Pa.
E. W. Schultheis, Brooklyn, N.Y.
Taylor Instrument Co., Rochester, N.Y.

Insulation

Armstrong Cork Co., Lancaster, Pa.
Barrett Co., The, New York, N.Y.
Bird & Son, E. Walpole, Mass.
Philip Carey Co., Lockland, Ohio
The Celotex Corp., Chicago, Ill.
Cork Insulation Co., Inc., New York, N.Y.
Craine, Inc., Norwich, N.Y.
Eagle-Picher Sales Co., Cincinnati, Ohio
Excelsior Mills Corp., Jacksonville, Fla.
Gay Engineering Corp., Los Angeles, Calif.
General Insulating & Mfg. Co., St. Louis, Mo.
Hinde & Dauch Paper Co., Sandusky, Ohio
Insulite Co., Minneapolis, Minn.
Johns-Manville, New York, N.Y.
Masonite Corp., Chicago, Ill.
National Gypsum Co., Buffalo, N.Y.
Owens-Illinois Glass Co., Toledo, Ohio
Pacific Lumber Co., San Francisco, Calif.
Pacific Lumber Co. of Illinois, Chicago, Ill.
Red Head Brand Co., Chicago, Ill.
Reflect-O, Inc., Chicago, Ill.
Reynolds Metals Co., Inc., New York, N.Y.
Rubroid Co., New York, N.Y.
Servicized Products Corp., Chicago, Ill.
Specialty Converters, Inc., East Braintree,
Mass.
United Cork Companies, W. Kearny, N.J.
United States Gypsum Co., Chicago, Ill.
Wood Conversion Co., St. Paul, Minn.

Motors, Electric

Century Electric Co., St. Louis, Mo.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N.Y.
Westinghouse Electric & Mfg. Co., East Pitts-
burgh, Pa.

Refrigeration Machinery

Baker Ice Machine Co., Inc., Omaha, Nebr.
Bedell Engineering Co., Los Angeles, Calif.
Brunner Mfg. Co., Utica, N.Y.
Burge Ice Machine Co., Chicago, Ill.
Carrier Corp., Syracuse, N.Y.
De La Vergne Engine Co., Inc., Philadelphia,
Pa.
Frick Company, Waynesboro, Pa.
Frigidaire Div., General Motors Sales Corp.,
Dayton, Ohio
Gay Engineering Corp., Los Angeles, Calif.
General Electric Co., Bloomfield, N.J.
General Refrigeration Sales Co., Beloit, Wis.
Harris Ice Machine Works, Portland, Ore.
Howe Ice Machine Co., Chicago, Ill.
Nash-Kelvinator Corp., Detroit, Mich.
Norge Corp., Detroit, Mich.
Parker Ice Machine Co., Inc., San Bernardino,
Calif.
Servel, Inc., Evansville, Ind.
Vilner Mfg. Co., Milwaukee, Wis.
Westinghouse Electric & Mfg. Co., E. Spring-
field, Mass.
Worthington Pump & Machinery Corp., Har-
rison, N.J.
York Ice Machinery Corp., York, Pa.

Roofing

American Rolling Mill Co., Middletown, Ohio
Barber Asphalt Co., Philadelphia, Pa.
Barrett Co., The, New York, N.Y.
Bird & Son, E. Walpole, Mass.
Brown Fence & Wire Co., Cleveland, Ohio
A. M. Byers Co., Pittsburgh, Pa.
Philip Carey Mfg. Co., Lockland, Ohio
Continental Steel Corp., Kokomo, Ind.
Craine, Inc., Norwich, N.Y.
Edwards Mfg. Co., Cincinnati, Ohio
Flintkote Co., New York, N.Y.
Globe Iron Roofing & Corrugating Co., Cin-
cinnati, Ohio
Interlocking Fence Co., Morton, Ill.
Johns-Manville, New York, N.Y.
Kitselman Bros., Muncie, Ind.
Lehman Co., Chicago, Ill.
National Fireproofing Co., Pittsburgh, Pa.
National Roofing Co., Tonawanda, N.Y.
Rubroid Co., New York, N.Y.
Southport Paint Co., Inc., Savannah, Ga.
Tuscan Co., New York, N.Y.
United States Gypsum Co., Chicago, Ill.



GLASSES
as Low as
\$1.95 Pair

16 DAYS TRIAL
Satisfaction Guaranteed
or money back. Choice of many styles.
Attractive prices.
Send No Money!
ADVANCE SPECTACLE CO.
537 S. Dearborn Dept. AFG-6 Chicago
Broken glasses repaired.
Write for FREE circular today.

STORAGES

Thermometers

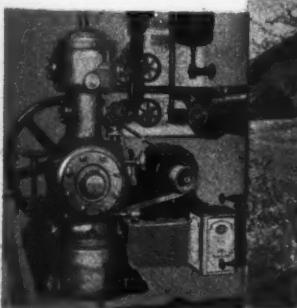
Bristol Co., Waterbury, Conn.
Elmer & Amend, New York, N.Y.
H-B Instrument Co., Philadelphia, Pa.
Taylor Instrument Co., Rochester, N.Y.

Thermostats

Bristol Co., Waterbury, Conn.
Carrier Corp., Syracuse, N.Y.
Frick Company, Waynesboro, Pa.
General Electric Co., Schenectady, N.Y.

Plan Your Refrigerated Farm Storage Now!

The Lenape Orchards, at Barto, Penna., use this Frick 4 by 4 Machine for Holding 10,000 Bushels of Apples at a Cost of 10c a Bushel.



NOW is the time to arrange for the cold storage, right on your farm, in which you can keep fruit and other products a whole season for as little as 10 or 12 cents a bushel. Frick automatic Refrigeration does it most dependably and economically. Bulletin 146-C, just off the press, gives full facts and figures: write **FRICK CO., Waynesboro, Penn.**

JUNE, 1941

AMERICAN FRUIT GROWER

H-B Instrument Co., Inc., Philadelphia, Pa.
Taylor Instrument Co., Rochester, N.Y.
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

Tile, Building

Craine, Inc., Norwich, N.Y.
Kalamazoo Tank & Silo Co., Kalamazoo, Mich.
Masonite Corp., Chicago, Ill.
National Fireproofing Co., Pittsburgh, Pa.
New Bethlehem Tile Co., New Bethlehem, Pa.

Ventilators

American Rolling Mill Co., Middletown, Ohio
Craine, Inc., Norwich, N.Y.
Ilg Electric Ventilating Co., Chicago, Ill.
James Mfg. Co., Ft. Atkinson, Wis.
Louden Machinery Co., Fairfield, Iowa
Royal Ventilator Co., Philadelphia, Pa.

Waterproofing Compounds

American Fluresit Co., Cincinnati, Ohio
Bird & Son, Inc., E. Walpole, Mass.
Ceresit Waterproofing Corp., Chicago, Ill.
Johns-Manville, New York, N.Y.
Koppers Products Co., Pittsburgh, Pa.
Toch Brothers, Inc., New York, N.Y.

Build now with "Kalamazoo" GLAZED TILE

Your own cold storage plant and other buildings of "Kalamazoo" Glazed Tile will prove a source of profit and constant satisfaction to you. "Kalamazoo" Glazed Tile is made in our own plant in the heart of America's finest fire clay district. Send for free literature. Our Service Department will gladly assist you. Control the marketing of your crops. Make more money.

KALAMAZOO TANK & SILO CO.
Box 9 Kalamazoo, Michigan

HAIL!

HAIL!



Etna Insurance Company
World Fire & Marine Insurance Company
Piedmont Fire Insurance Company

Insurance Company of North America
Alliance Insurance Company
Philadelphia Fire & Marine
Insurance Company
Central Insurance Company of Baltimore
National Security Insurance Company

**Springfield Fire & Marine Insurance
Company**
Sentinel Fire Insurance Company
New England Fire Insurance Company
Michigan Fire & Marine Insurance Company

See the local agent of
one of the above
named capital stock
companies for full in-
formation regarding
Hail Insurance on
Fruit Crops, or write
to

HAIL DEPARTMENT

209 West Jackson Blvd.

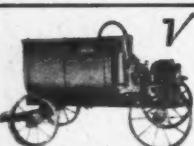
Chicago, Ill.

Check this list for "BEAN" Helps to MORE PROFITS



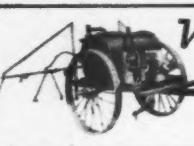
BEAN 'Royal' Armored Sprayer, most efficient power sprayer ever built. All sizes.

BEAN 'Royal' Tractor Power Sprayer... 2-speed transmission if desired. All sizes.



BEAN 'Little Giant' Duplex Sprayer. Six gallons a min. at 350 lbs. Two-cyl. pump.

BEAN Orchard Duster. Mixes its own dust... Most efficient duster made. One compact gear unit.



BEAN 'All-Purpose' Sprayer. For row crops and orchard work. Engine-driven. Low cost.

BEAN Greenhouse Sprayer. Light, compact, economical. Easy to handle.



BEAN 2-Way Fruit Cleaner. A dry cleaner which leaves fruit clean and bright. ... 3 sizes

BEAN Rubber-Spool Grader for potatoes & onions. Also cleans. Small, light, compact.



CUTLER Weight-type Grader . . . for apples, peaches, pears. Also, Cushman Replacement Engines.

JOHN BEAN MFG. CO.
DIVISION FOOD MACHINERY CORPORATION

15 Hosmer Street, Lansing, Michigan
104 West Julian Street, San Jose, California

Please send information on:

- ...BEAN Armored Sprayer
- ...BEAN All-Purposes
- ...BEAN Tractor Sprayers
- ...BEAN Greenhouse Sprayer
- ...BEAN Little Giant Duplex
- ...BEAN 2-Way Grader
- ...BEAN Orchard Duster
- ...BEAN Rubber-Sp. Grader
- ...CUSHMAN Engines

NAME

ADDRESS

PACKING HOUSE EQUIPMENT

Belting

Broadway Rubber Mfg. Co., Louisville, Ky.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, Ohio
Goodyear Tire & Rubber Co., Inc., Akron, Ohio
Parma Water Lifter Co., Parma, Idaho
Quaker Rubber Corp., Philadelphia, Pa.
Republic Rubber Div., Lee Rubber & Tire Corp., Youngstown, Ohio
United States Rubber Co., New York, N.Y.

Box Forms

Double Twirler Spray Nozzle Corp., Red Hook, N.Y.
Orchard Appliance Co., Wenatchee, Wash.
F. A. Read, Inc., Albion, N.Y.

Box Making Machinery

Cobden Machine Works, Cobden, Ill.
William S. Doig, Inc., Brooklyn, N.Y.
Food Machinery Corp., Santa Ana, Calif.
Morgan Machine Co., Inc., Rochester, N.Y.
Saranac Machine Co., Benton Harbor, Mich.

Cleaners and Polishers

George G. Bates, Kingston, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Butler Mfg. & Machinery Co., Inc., Chicago, Ill.
Fred A. Durand, Woodbury, Ga.
"Friend" Mfg. Co., Gasport, N.Y.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
The Taylor Grader, Anna, Ill.
Trescott Co., Inc., Fairport, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Wayland Machinery Co., Covesville, Va.

Conveyors

John Bean Mfg. Co., Lansing, Mich.
Brogdex Co., Wenatchee, Wash.
Conveyor Co., Inc., Huntington Park, Calif.
A. B. Farquhar Co., Ltd., York, Pa.
Link-Belt Co., Chicago, Ill.
Love Tractor Sales, Inc., Eau Claire, Mich.
Mathews Conveyor Co., Ellwood City, Pa.
Nailing Machine Div., Food Machinery Corp., San Jose, Calif.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Standard Conveyor Co., N. St. Paul, Minn.
Trescott Co., Inc., Fairport, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Wayland Machinery Co., Covesville, Va.

Facers, Basket

John Bacon Inc., Gasport, N.Y.
Continental Paper Products Co., Denver, Colo.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
B. F. Goodrich Co., Akron, Ohio
Rice, Trew & Rice Co., Inc., Biglerville, Pa.
Simplex Paper Corp., Adrian, Mich.
Edwin C. Tyson, Flora Dale, Pa.

Facers, Box

F. A. Read, Inc., Albion, N.Y.

Graders and Sizers

George G. Bates, Kingston, N.Y.
John Bean Mfg. Co., Lansing, Mich.
Brogdex Co., Wenatchee, Wash.
Butler Mfg. & Machinery Co., Chicago, Ill.
Cutler Mfg. Co., Portland, Ore.
Fred A. Durand, Woodbury, Ga.
"Friend" Mfg. Co., Gasport, N.Y.
Fruit Machines Co., Portland, Ore.
Ideal Grader & Nursery Co., Hood River, Ore.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
The Taylor Grader, Anna, Ill.
Trescott Co., Inc., Fairport, N.Y.
Edwin C. Tyson, Flora Dale, Pa.
Wayland Machinery Co., Covesville, Va.

Hoists, Electric

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Detroit Hoist & Machine Co., Detroit, Mich.
Euclid Crane & Hoist Co., Cleveland, Ohio
Fairbanks, Morse & Co., Chicago, Ill.
Robbins & Myers, Inc., Springfield, Ohio
Silent Hoist Winch & Crane Co., Brooklyn, N.Y.
Yale & Towne Mfg. Co., Hoist Dept., Philadelphia, Pa.

TAYLOR GRADERS

ECONOMICAL TO BUY...
ECONOMICAL TO USE

Growers using compact Taylor Graders report that each will grade more than 1000 bushels a day. Other Taylor features: combination apple and peach grader-strawberry sorter-strawberry facer.

WRITE FOR PRICES

THE TAYLOR GRADER ANNA, ILLINOIS

PACKING HOUSE EQUIPMENT

Insect Electric Screens
Chicago Electric Scientific Co., Chicago, Ill.

Insecticide Diffusers
Tanglefoot Co., Grand Rapids, Mich.

Lidding Machines

John Bean Mfg. Co., Lansing, Mich.
Continental Paper Products Co., Denver, Colo.
Cutler Mfg. Co., Portland, Ore.
William S. Doig, Inc., Brooklyn, N.Y.

Lift Trucks

Barrett-Cravens Co., Chicago, Ill.
Colson Co., Elyria, Ohio
Lewis-Shepard Co., Watertown, Mass.
Service Caster & Truck Co., Albion, Mich.
Yale & Towne Mfg. Co., Philadelphia, Pa.

Motors, Electric

Century Electric Co., St. Louis, Mo.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N.Y.
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

Nailing Machinery

William S. Doig, Inc., Brooklyn, N.Y.
Morgan Machine Co., Inc., Rochester, N.Y.
Nailing Machine Div., Food Machinery Corp., San Jose, Calif.

Packing Forms

John Bacon Inc., Gasport, N.Y.
Continental Paper Products Co., Denver, Colo.
Frank L. Deane & Son, Benton Harbor, Mich.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Rice, Trew & Rice Co., Inc., Biglerville, Pa.
The Taylor Grader, Anna, Ill.
Edwin C. Tyson, Flora Dale, Pa.

Packing Tables

Brogdex Co., Wenatchee, Wash.
Fruit Machines Co., Portland, Ore.
Ideal Grader & Nursery Co., Hood River, Ore.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
The Taylor Grader, Anna, Ill.

Presses, Basket

Acme Veneer Package Co., Orchard Park, N.Y.
Fruit Package Equipment Co., Swoope, Va.

Presses, Box

John Bean Mfg. Co., Lansing, Mich.
Cutler Mfg. Co., Portland, Ore.
Parker Machine Works, Riverside, Calif.

Ripening Outfits, Ethylene

Carbide & Carbon Chemicals Corp., New York, N.Y.
Ohio Chemical & Mfg. Co., Cleveland, Ohio

Rings, Sizing

John Bacon Inc., Gasport, N.Y.
F. A. Read, Inc., Albion, N.Y.
Salt Lake Stamp Co., Salt Lake City, Utah
Edwin C. Tyson, Flora Dale, Pa.

Scales

Exact Weight Scale Co., Columbus, Ohio
Fairbanks, Morse & Co., Chicago, Ill.
Howe Scale Co., Rutland, Vt.

Sorters, Berry

The Taylor Grader, Anna, Ill.

Sorting Tables, Fruit

John Bean Mfg. Co., Lansing, Mich.
Brogdex Co., Wenatchee, Wash.
Cutler Mfg. Co., Portland, Ore.
Fred A. Durand, Woodbury, Ga.
Fruit Machines Co., Portland, Ore.
Fruit Packing Equipment Co., Swoope, Va.
Ideal Grader & Nursery Co., Hood River, Ore.
Niagara Sprayer & Chemical Co., Inc., Middleport, N.Y.
Parma Water Lifter Co., Parma, Idaho
The Taylor Grader, Anna, Ill.
Wayland Machinery Co., Covesville, Va.

EVERYTHING FOR THE ORCHARD

FRUIT PACKING EQUIPMENT AND SUPPLIES
Conveyors, Graders, Washers, Dryers, Polishers, Caps, Liners, Cushions, Wraps, Shredded Oil Paper, Basket Tiers, Gravity Liners, Baskets, Separators, Belts, Histic, Stepless Stamps, Ink Brushes, Nail Strippers, Sizing Rings, Labels and Paste, Cider Presses and Containers, Apple Butter Cookers. State requirements and ask for Special Literature. No General Catalog.

EDWIN C. TYSON,

Flora Dale, Pa.

See Ads. Pages 21, 32

SPONGE RUBBER SHEETS

Fruit grading equipment lined with these $\frac{1}{4}$ " thick, soft, resilient shock absorbers save many dollars and results in better and quicker sales of fruit. One side is coated with an adhesive which eliminates tacking. Postpaid in Michigan \$2.98 square yard, outside \$3.25. Larger quantity prices on request.

KENT MFG. COMPANY
BOX 593, GRAND RAPIDS, MICHIGAN

Sponge Rubber Sheeting

Broadway Rubber Co., Louisville, Ky.
Faultless Rubber Co., Mansfield, Ohio
Kent Mfg. Co., Grand Rapids, Mich.
Sponge Rubber Products Co., Derby, Conn.
Edwin C. Tyson, Flora Dale, Pa.

Stands, Facing

Fruit Packing Equipment Co., Swoope, Va.

Staplers and Stitchers

Automatic Stapler Co., Chicago, Ill.
Bostitch Sales Co., Greenwich, R.I.
Cobden Machine Works, Cobden, Ill.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
General Food Package Equipment Corp., Benton Harbor, Mich.
Markwell Mfg. Co., Inc., New York, N.Y.
Parrot Speed Fasteners Corp., New York, N.Y.
Saranac Machine Co., Benton Harbor, Mich.

WHY PAY
thru the
NOSE
for Staples!

Get a production machine that makes and drives its own staples from coils of standard wire. This Model "K" is ideal for setting up attaching handles to corrugated boxes and baskets. Write



SARANAC MACHINES
BENTON HARBOR, MICHIGAN
OUR 48th YEAR

Staples

Fruit & Produce Packing, Inc., Indianapolis, Ind.
Markwell Mfg. Co., Inc., New York, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

Trucks, Warehouse

Barrett-Cravens Co., Chicago, Ill.
Butler Mfg. & Machinery Co., Chicago, Ill.
Electric Wheel Co., Quincy, Ill.
Huntington Wagon Works, Huntington, Ind.
Lewis-Shepard Co., Watertown, Mass.
Musselman Products Co., Cleveland, Ohio
Peru Wheel Co., Peru, Ill.
Saginaw Stamping & Tool Co., Saginaw, Mich.
Service Caster & Truck Co., Albion, Mich.
Steubing Truck Co., Cincinnati, Ohio
Thomas Truck & Caster Co., Keokuk, Iowa
Yale & Towne Mfg. Co., Philadelphia, Pa.

Turners, Basket

John Bean Mfg. Co., Lansing, Mich.
Continental Paper Products Co., Denver, Colo.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Fruit Packing Equipment Co., Swoope, Va.
Niagara Sprayer & Chemical Co., Middleport, N.Y.
Tresscott Co., Inc., Fairport, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

Washers, Fruit

John Bean Mfg. Co., Lansing, Mich.
Brogdex Co., Wenatchee, Wash.
Cutler Mfg. Co., Portland, Ore.
Ideal Grader & Nursery Co., Hood River, Ore.
Parma Water Lifter Co., Parma, Idaho
Edwin C. Tyson, Flora Dale, Pa.
Wayland Machinery Co., Covington, Va.

Washing Compounds, Fruit

American Cyanamid & Chemical Corp., Insecticide Dept., New York, N.Y.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
General Chemical Co., New York, N.Y.
Los Angeles Soap Co., Los Angeles, Calif.
Mallinckrodt Chemical Works, St. Louis, Mo.
Mechling Bros. Chemical Co., Camden, N.J.
Monsanto Chemical Co., Rubber Service Laboratories Div., Akron, Ohio
Philadelphia Quartz Co., Philadelphia, Pa.
Tennessee Eastman Corp., Kingsport, Tenn.

Wax

Brogdex Co., Pomona, Calif.
Dow Chemical Co., Midland, Mich.
Wilbur White Div., Franklin Research Co., Philadelphia, Pa.

PACKAGES AND PACKAGING

Caps, Corrugated

John Bacon Inc., Gasport, N.Y.
Berryville Basket Co., Inc., Berryville, Va.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Hinde & Dauch Paper Co., Sandusky, Ohio
Rice, Trew & Rice Co., Inc., Biglerville, Pa.
Simplex Paper Corp., Adrian, Mich.
Sutherland Paper Co., Kalamazoo, Mich.
Edwin C. Tyson, Flora Dale, Pa.

Cellophane

E. I. du Pont de Nemours & Co., Inc., "Cellophane" Div., Wilmington, Del.
Sylvania Industrial Corp., New York, N.Y.

Containers

BAGS, CLOTH, OPEN MESH, PAPER
Bemis Bro. Bag Co., St. Louis, Mo.
Chase Bag Co., Chagrin Falls, Ohio
Fulton Bag & Cotton Mills, Atlanta, Ga.

BASKETS, CORRUGATED, FIBERBOARD, PAPERBOARD

American Box Board Co., Grand Rapids, Mich.
Ashtabula Corrugated Box Co., Ashtabula, Ohio
Container Corp. of America, Chicago, Ill.
Arthur A. Erny Co., St. Paul, Minn.
Fibreboard Products Inc., San Francisco, Calif.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Robert Gair Co., Inc., New York, N.Y.
Gaylord Container Corp., Atlanta, Ga.
Hankins Container Co., Cleveland, Ohio
Kieckhefer Container Co., Delair, N.J.
Ohio Boxboard Co., Rittman, Ohio
Pioneer Paper Stock Co., Chicago, Ill.
Fred C. Strype, New York, N.Y.
Edwin C. Tyson, Flora Dale, Pa.

BASKETS, WOOD

Acme Veneer Package Co., Orchard Park, N.Y.
John Bacon Inc., Gasport, N.Y.
Barden & Robeson Corp., Lockport, N.Y.
Barden & Robeson Corp., Penn Yan, N.Y.
Burlington Basket Co., Burlington, Iowa
Cummer-Graham Co., Paris, Texas
Frank L. Deane & Son, Benton Harbor, Mich.
Edgerton Mfg. Co., Plymouth, Ind.
Evansville Basket & Crate Co., Evansville, Ind.
F. W. Harrison & Son, Painesville, Ohio
Marietta Fruit Package & Lumber Co., Marietta, Ohio
Paducah Box & Basket Co., Paducah, Ky.
Pierce-Williams Co., South Haven, Mich.
H. L. Rapp & Son, Carpentersville, N.J.
Ripley Box & Basket Co., Inc., Ripley, Tenn.
Roberts-Liggett Co., Metropolis, Ill.
Sodus Basket Co., Sodus, N.Y.
Walter Verhalen Co., Dallas, Texas

BOX SHOCKS

Acushnet Saw Mills Co., New Bedford, Mass.
Chicago Mill & Lumber Co., Chicago, Ill.
General Box Co., Chicago, Ill.
Green Co., Inc., Bellows Falls, Vt.
Holston Box & Lumber Co., Knoxville, Tenn.
Marinette & Menominee Box Co., Marinette, Wis.
Maxwell Brothers, Inc., Chicago, Ill.
Mell Lumber Co., Philadelphia, Pa.
New England Box Co., New York, N.Y.
Rathbone, Hair & Ridgway Co., Chicago, Ill.
Smed Box Co., Cleveland, Ohio
Spruce Veneer Package Corp., Puyallup, Wash.

BOXES AND CRATES, BERRY

Acme Veneer Package Co., Orchard Park, N.Y.
American Box Board Co., Grand Rapids, Mich.
Ashtabula Corrugated Box Co., Ashtabula, Ohio
Berlin Fruit Box Co., Berlin Heights, Ohio
Frank L. Deane & Son, Sodus, Mich.
Fibre Berry Box Co., Hammond, La.
Fibreboard Products Inc., San Francisco, Calif.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Robert Gair Co., Inc., New York, N.Y.
Gaylord Container Corp., Atlanta, Ga.
General Box Co., Chicago, Ill.
F. W. Harrison & Son, Painesville, Ohio
Inman Mfg. Co., Amsterdam, N.Y.

Maxwell Brothers, Inc., Chicago, Ill.
New Albany Box & Basket Co., New Albany, Ind.
Ohio Boxboard Co., Rittman, Ohio
Ripley Box & Basket Co., Inc., Ripley, Tenn.
Rollrim Box Co., Benton Harbor, Mich.
Spruce Veneer Package Corp., Puyallup, Wash.
Edwin C. Tyson, Flora Dale, Pa.

BOXES AND CRATES, CORRUGATED, FIBERBOARD, PAPERBOARD

American Box Board Co., Grand Rapids, Mich.
Ashtabula Corrugated Box Co., Ashtabula, Ohio
Baltimore Paper Box Co., Baltimore, Md.
Bird & Son, Inc., E. Walpole, Mass.
California Container Corp., Emeryville, Calif.
Container Corp. of America, Chicago, Ill.
Evansville Container Co., Evansville, Ind.
Corrugated Container Co., Columbus, Ohio
Fibreboard Products Inc., San Francisco, Calif.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Robert Gair Co., Inc., New York, N.Y.
Gaylord Container Corp., Atlanta, Ga.
Hankins Container Co., Cleveland, Ohio
Hinde & Dauch Paper Co., Sandusky, Ohio
Marketing Service Corp., Baltimore, Md.
Ohio Boxboard Co., Rittman, Ohio
Owens-Illinois Pacific Coast Co., San Francisco,
Calif.
Pioneer Paper Stock Co., Chicago, Ill.
B. G. Pratt Co., New York, N.Y.
Rollrim Box Co., Benton Harbor, Mich.
Simplex Paper Corp., Adrian, Mich.
Fred C. Strype, New York, N.Y.
Traub Container Corp., Cleveland, Ohio
Edwin C. Tyson, Flora Dale, Pa.
Van Vick Paper Co., Duluth, Minn.

BOXES AND CRATES, WIREBOUND

Chicago Mill & Lumber Co., Chicago, Ill.
Florida All-Bound Box Co., Auburndale, Fla.
General Box Co., Chicago, Ill.
Indianapolis Wire Bound Box Co., Indianapolis, Ind.
R. T. Jones Lumber Co., North Tonawanda, N.Y.
Marietta Fruit Package & Lumber Co., Marietta, Ohio
Maxwell Brothers, Inc., Chicago, Ill.
New England Box Co., New York, N.Y.
Planters Mfg. Co., Inc., Portsmouth, Va.
Rathbone, Hair & Ridgway Co., Chicago, Ill.
Ripley Box & Basket Co., Inc., Ripley, Tenn.
Southern Crate & Veneer Co., Macon, Ga.
Southern Package Corp., Fort Gibson, Miss.

CHASE

SAXOLIN
OPEN MESH BAGS

WILL SELL
MORE APPLES!

The Original
Air Conditioned
Apple Package

Make more money
this season. Apples
in Saxolin bring
quicker sales and
higher prices be-
cause these colorful
air conditioned bags
shout "Buy Me First!"
Let people "see what
they buy"—sell them
apples in handy Saxo-
lin bags . . . and
you'll sell more!



CHASE BAG CO.
CHAGRIN FALLS, OHIO

Without obligation please send me at once samples and prices on Chase Saxolin Open-Mesh apple bags in the sizes indicated.

5 lb. 10 lb. 1/2 bu. 1 bu.

NAME

POST OFFICE

R.F.D. STATE

It's Here!

IN THE NEW CONSUMER TRAY APPLE CONTAINER APPLES KEEP LONGER, LOOK BETTER, SELL FOR MORE.

Cash in now, along with the thousands of growers who are marketing their apples in the consumer tray box. Dealers like them—Customers demand them!

Write for samples and prices

FRUIT & PRODUCE PACKING
INC.,
Indianapolis, Indiana

OPPORTUNITY ADS

Only 15c a Word—CASH WITH ORDER. Count each initial and whole number as one word.
ADDRESS: AMERICAN FRUIT GROWER, 1370 Ontario Street, Cleveland, Ohio

ASHES

HARDWOOD ASHES—\$1.50 PER 100 LBS. T. R. HOGAN, Mt. Morris, Pennsylvania.

BABY CHICKS

NEW LOW PRICES ON DAVIS CHICKS FOR IMMEDIATE DELIVERY. Barred, White, Buff Rocks, Reds, White Wyandottes, Buff Orpingtons \$6.45-100; Pullets \$7.95. Big English White and Brown Leghorns \$6.45-100; Pullets \$12.45. New Hampshires, Columbian, Silver Laced Wyandottes, Rhode Island Whites \$7.95-100; Pullets \$9.95. White, Buff, Black Minorcas \$6.75-100; Pullets \$12.95. White, Giants, Brahma \$8.95-100. Heavy Cockers \$6.45-100; Light Cockers \$2.50. Heavy Mixed \$5.75. Turkey poult. Write for free chick catalogue. DAVIS POULTRY FARM, Route 3, Ramsey, Indiana.

HINKLE STRAIN BLENDED CHICKS FOR IMMEDIATE SHIPMENT. Barred, White, Buff Rocks, Reds, White Wyandottes, Buff Orpingtons \$6.45-100; Pullets \$8.25; Cockers \$6.45; White and Buff Minorcas \$7.50-100; Pullets \$14.95; Cockers \$3.75. English White Leghorns and Brown Leghorns \$6.45-100, Pullets \$11.95; Cockers \$2.25; Heavy Mixed \$5.75; Light Mixed for layers or fryers \$4.95. Hinkle pays the postage, will ship COD. Catalog Free. HINKLE'S GREENSBURG HATCHERY, Box 56, Greenburg, Indiana.

DEPENDABLE CHICKS, \$3.95 PER HUNDRED UP. Twenty breeds. Oldest Illinois-U.S. Approved Hatchery, known for fair dealing. CHESTNUT HATCHERY, Box 12, Chestnut, Illinois.

BASKET TURNERS

COW BASKET TURNER GIVES AN EVEN FACE, eliminates lifting. Turns 2000 per day, also works in roller conveyor. Price \$15.00 east of Mississippi river delivered. FRUIT PACKING EQUIPMENT CO., Swoope, Virginia.

BERRY BOXES

GREEN AND WHITE BERRY BOXES DISPLAY your fruit attractively and create consumer demand. Liberal discounts. Write BOLLERIA BOX, Benton Harbor, Michigan.

BLACK WALNUT TREES

THIN-SHELL BLACK WALNUTS—RAPID GROWERS, beautiful shades; bear second year. Nuts large, easily cracked. Catalog free. CORSICANA NURSERY, Corsicana, Texas.

BLUEBERRY PLANTS

DELICIOUS, IMPROVED BLUEBERRIES, GOVERNMENT Hybrids. Large as grapes. Two-year plants, 2 for \$1.00, 5 for \$2.00; bearing three-year, \$1.00. 3 for \$2.00. All prepaid. GEO. C. MORSE, Williamson, New York.

CIDER MILLS

CIDER TIME, FREE, HOW TO KEEP CIDER SWEET, make vinegar quickly, money from cull apples. Presses, Graters, Filters, Supplies. PALMER BROS., Cos Cob, Connecticut.

DAHLIAS

DAHLIA SPECIAL—12 GIANT LABELED \$1.00. 15 mixed \$1.00; 100 glads \$1.00; 15 Delphiniums \$1.00; 15 Chrysanthemums \$1.00. Catalog. CLARKSBURG DAHLIA GARDENS, Clarkburg, Indiana.

FACE PROTECTORS

USE E-Z "C" FACE PROTECTOR FOR SPRAYING lime, sulphur, oil, etc. Special E-Z "C" feature provides clear view continuously. Protects lungs. See display ad Page 22. Write CESCO, 2308 Warren Blvd., Chicago.

FACING STANDS

SAVES LABOR, SPEEDS UP BING PACKING—REVOLVING TOP-ALL IRON CONSTRUCTION. Price \$2.50 delivered east of the Mississippi river. FRUIT PACKING EQUIPMENT COMPANY, Swoope, Virginia.

FANCY POULTRY

100 VARIETIES—BANTAMS, PHEASANTS, POULTRY. Catalogue 3c. F. C. WILBERT, Grand Rapids, Michigan.

FARM MACHINERY

WRITE FOR FREE, BIG 1941 TRACTOR PARTS CATALOG, all makes. Tremendous savings. Satisfaction guaranteed. CENTRAL TRACTOR WRECKING COMPANY, Boone, Iowa.

FOR SALE

FOR SALE—52 ACRE APPLE ORCHARD, 18 YEARS OLD, 8 miles north of Springfield, Ohio. House, Barn, Sales Shed and Equipment. Good local markets. Commercial varieties, principally Red and Yellow Delicious. Priced very reasonable. Address MORRIS PLAN BANK, Springfield, Ohio.

HUNDREDS OF FARMS—FREE CATALOG. BELT REALTY, Chase City, Virginia.

A YOUNG APPLE ORCHARD JUST COMING INTO Bearing—well located in a good apple section. In first class condition. Apply EDWARD A. ELLIS, Castleton, Vermont.

YORK 5x5 COMPRESSOR UNIT WITH MOTOR, valves, coils, everything complete. Run less than 200 days. A-1 shape. A good buy. LUTHER CREEASY, Catasauqua, Pennsylvania.

SMALL COMMERCIAL APPLE ORCHARD, 900 TREES, good bearing age. Write for particulars and terms. W. SNODGRASS, Hull, Illinois.

FRUIT SEEDLINGS, ROOT GRAFTS, ETC. JONES NURSERY, Woodlawn, Virginia.

NOTE: IF YOU HAVE A NEW FRUIT SEND US description and sample. E. W. JONES, Woodlawn, Virginia.

COLONIAL RESIDENCE, TWO TENANT HOUSES, 2400 prime apple trees, storage building, brooks, 270 acres, \$14,000.00. Photographs. GEORGE COLLESTER, Springfield, Massachusetts.

LAND AND WATER FOWL

PEAFOWL, SWANS, PHEASANTS, BANTAMS, WILD Turkeys, Geese. Thirty varieties Pigeons, Stock, Eggs. JOHN HASS, Bettendorf, Iowa.

MISCELLANEOUS

EVENTUALLY YOU'LL LIVE IN FLORIDA. KEEP in touch with its agricultural opportunities by subscribing to its leading citrus and truck magazine. 50c per year; 3 years, \$1.00. FLORIDA FARM AND GROVE, JACKSONVILLE, Florida.

NURSERY STOCK

FRUIT TREES, PROPAGATED FROM BEARING OR chards. Absolutely true to name. The Double Red varieties in Jonathan, Delicious Home Beauty. Also Turly, Grimes, Transparent, Wm. Early Red and Virginia Crab Seedling for top working. Yellow Delicious. Gage Elberta, Hale Haven and Elberta, Red Bird. Get our rock bottom commercial, orchard prices. THE VIENNA NURSERY, Vienna, Illinois.

25,000 NEW HARDY VARIETIES PEACH AND APRICOT trees. Catalog, free! MARKHAM, Fruit Breeder, Xenia, Illinois.

PEACH AND OTHER FRUITS—WRITE FOR QUOTAS—LINDLEY NURSERIES, Greensboro, North Carolina.

PERENNIAL VIOLAS—GROWN FROM DIVISIONS: large blooms 6 to 8 months. Plant spring or fall. Maggie Matt, Enchantress, Pride of Victoria, Daffodil, many others. 4 for \$1.00. \$2.50 dozen. \$2.00 orders postpaid. List on request. HARPER VIOLA GARDENS, Scappoose, Oregon.

ORCHARD SUPPLIES

WE CAN FURNISH EVERYTHING NEEDED IN growing, harvesting and packing your fruit. Of immediate interest, Cod-O-Cide fruit bands, D X for aphids redmite and codling moth and Flotation Sulphur. Address immediately for prompt service. EDWIN C. TYSON, Flora Dale, Pennsylvania.

FRESHLY EMPTIED WHISKY BARRELS, GLASS Gallon Jugs, Cotton Duck Filter Cloth, ask us for quotations. SHO-OFF ORCHARDS PRODUCTS CO., 107 No. Washington Street, Peoria, Illinois.

PATENTS

National Trade Mark Company
Munsey Building
Washington, D. C.
Trade Mark Specialists

PHEASANTS

RAISE PHEASANTS—PROFIT OR PLEASURE. SEND 5c for pamphlet and price list. RAINBOW FARM PHEASANTRY, Barrington, Illinois.

PHOTO FINISHING

ROLLS DEVELOPED—TWO BEAUTIFUL DOUBLE weight Professional Enlargements, 8 Never Fade Deckle Edge Prints, 25c. CENTURY PHOTO SERVICE, La Crosse, Wisconsin.

PICKING BAGS

A LIMITED STOCK OF WENATCHEE AND PENNSYLVANIA Bags and Cyclone Buckets available at old prices. Prices on picking bags and ladders advance sharply June 1. EDWIN C. TYSON, Flora Dale, Pennsylvania.

POULTRY

READ NEW ENGLAND POULTRYMAN—ALTHOUGH local in name, New England Poultryman is read nationally by leading poultry growers because of the high character of its editorial content and its carefully censored advertising. 1 year \$1.00. 3 years \$2.00. 6 months trial subscription 25c. NEW ENGLAND POULTRYMAN, 4 Park Street, Boston, Massachusetts.

PRINTING

1000 BUSINESS CARDS—\$2.50. LETTERHEADS. Envelopes. J. W. RATKINS, Coraopolis, Pennsylvania.

PURE WOOLENS

PURE WOOL CLOTHING AND BLANKETS, BATTYS, etc. Direct from Mill to User. Send for catalog. MERRILL WOOLEN MILLS, Merrill, Wisconsin.

SILK HOSIERY

BEAUTIFUL SILK HOSIERY. 5 PAIRS \$1.00 (TRIAL 25c). Three exquisite fulsfashioned \$1.25. DIREX, AF4U6W Broad, Savannah, Georgia.

STRAWBERRY PLANTS

MILLIONS CERTIFIED YELLOW FREE BLAKEMORE strawberry plants. Write for prices. R. R. McUMBER, Greenfield, Tennessee.

TREE BANDS

COD-O-CIDE TREE BANDS, STANDARD FOR twelve years throughout the United States. Send orders immediately for early manufacture and shipment. EDWIN C. TYSON, Flora Dale, Pennsylvania.

EARLY BIRD TREE BANDS CHEMICALLY TREATED. Low in price, high in quality. Send orders early. EDWIN H. HOUSE, Saugatuck, Michigan.

CHEMICALLY TREATED TREE BANDS. M. A. KOELLER, Barry, Illinois.

VEGETABLE PLANTS

100 ACRES THIS SEASON, ALL NOW READY. TO-DATE: Marglobe, Master Marglobe, Rutgers, Baltimore, Johnson, Red, and Standard—\$1.75—1000; 10,000—\$15.00. Cabbage Plants, all leading varieties, including Yellow Red, \$1.00—1000. Sweet Potato Plants, Nancy Hails, Porto Rico and Big Stem Jersey \$1.75—1000; \$15.00—10,000. We use certified (treated) seeds and cultivate our plants which gives them a better root system. The difference you pay will be regained by increased crop production. Shipping capacity over 500 thousand daily. J. P. COUNCIL COMPANY, Franklin, Virginia.

PLANTS (MILLIONS) CABBAGE—COPENHAGEN, Flat Dutch Ballhead. Prepaid 200, 60 cents. 500—\$1.10; 1000—\$1.65. Celery 150-60 cents, 500—\$1.60; 1000—\$2.40. CAULIFLOWER AND ASTER 100-60 cents. W. J. MYERS, Massillon, Ohio.

WALNUT CRACKERS

LATEST WALNUT CRACKERS, DIRECT FROM MANUFACTURER. Also 40-acre nut farm. BENN THOMPSON, Harrisonburg, Virginia.

PACKAGES AND PACKAGING

BOXES AND CRATES, WOOD

John Bacon Inc., Gasport, N.Y.
Barden & Robeson Corp., Lockport, N.Y.
Barden & Robeson Corp., Penn Yan, N.Y.
California Barrel Co., Ltd., Los Angeles, Calif.
Chicago Mill & Lumber Co., Chicago, Ill.
H. A. Du Bois & Sons, Inc., Cobden, Ill.
Evansville Container Co., Evansville, Ind.
General Box Co., Chicago, Ill.

F. W. Harrison & Son, Painesville, Ohio
Maxwell Brothers, Inc., Chicago, Ill.
Mell Lumber Co., Philadelphia, Pa.
T. R. Miller Mill Co., Inc., Brewton, Ala.
New Albany Box & Basket Co., New Albany, Ind.
New England Box Co., New York, N.Y.
Rathborne, Hair & Ridgway Co., Chicago, Ill.
Smeed Box Co., Cleveland, Ohio

Sodus Basket Co., Sodus, N.Y.
Southern Crate & Veneer Co., Macon, Ga.
Spruce Veneer Package Corp., Puyallup, Wash.
Traub Container Corp., Cleveland, Ohio
Edwin C. Tyson, Flora Dale, Pa.

CARTONS, CONSUMER

American Box Board Co., Grand Rapids, Mich.
California Container Corp., Emeryville, Calif.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Robert Gair Co., Inc., New York, N.Y.
Marketing Service Corp., Baltimore, Md.

Cushions

Continental Paper Products Co., Denver, Colo.
F. D. Croce & Co., Inc., New York, N.Y.
Edgerton Mfg. Co., Plymouth, Ind.
Arthur A. Erny Co., St. Paul, Minn.

Fruit & Produce Packing, Inc., Indianapolis, Ind.
Hinde & Dauch Paper Co., Sandusky, Ohio
Rice, Trew & Rice Co., Inc., Bigerville, Pa.

Simplex Paper Corp., Adrian, Mich.
Fred C. Strype, New York, N.Y.
Sutherland Paper Co., Kalamazoo, Mich.
Edwin C. Tyson, Flora Dale, Pa.

Excelsior

American Excelsior Corp., Chicago, Ill.
Brooks Paper Co., St. Louis, Mo.
Excelsior Mills Corp., Jacksonville, Fla.
Pioneer Paper Stock Co., Chicago, Ill.
Sylvania Industrial Corp., New York, N.Y.

Fringes

Continental Paper Products Co., Denver, Colo.
F. D. Croce & Co., Inc., New York, N.Y.
Arthur A. Erny Co., St. Paul, Minn.
Fruit & Produce Packing, Inc., Indianapolis, Ind.
Pioneer Paper Stock Co., Chicago, Ill.
Rice, Trew & Rice Co., Inc., Bigerville, Pa.
Sutherland Paper Co., Kalamazoo, Mich.

Labels

Brandau-Craig-Dickerson Co., Nashville, Tenn.
F. D. Croce & Co., Inc., New York, N.Y.
Epsen Lithographing Co., Omaha, Nebr.

Fibreboard Products Inc., San Francisco, Calif.
Games Lithographing Co., Inc., Baltimore, Md.
Gravare Co., New York, N.Y.

A. Hoen & Co., Baltimore, Md.
A. B. Morse Co., St. Joseph, Mich.

Muirson Label Co., Inc., San Jose, Calif.

Reynolds & Reynolds Co., Dayton, Ohio

Schmidt-Lithograph Co., San Francisco, Calif.

Tablet & Ticket Co., Chicago, Ill.

United States Printing & Lithograph Co., Cincinnati, Ohio

THE STANDARD PAPER LINE

PACKAGING

Green Stripe Caps—Hunt Liners—Tissue—

Fringes—Cushions—Corrugated Boxes

FRUIT & PRODUCE PACKING, INC.

Indianapolis, Ind.

Liners

Berryville Basket Co., Inc., Berryville, Va.
Continental Paper Products Co., Denver, Colo.
F. D. Croce & Co., Inc., New York, N.Y.

Frank L. Deane & Son, Benton Harbor, Mich.

Edgerton Mfg. Co., Plymouth, Ind.

Arthur A. Erny Co., St. Paul, Minn.

Evansville Container Co., Evansville, Ind.

Fruit & Produce Packing, Inc., Indianapolis, Ind.

New Albany Box & Basket Co., New Albany, Ind.

Rice, Trew & Rice Co., Inc., Bigerville, Pa.

Simplex Paper Corp., Adrian, Mich.

Fred C. Strype, New York, N.Y.

Sutherland Paper Co., Kalamazoo, Mich.

Edwin C. Tyson, Flora Dale, Pa.

Pads

John Bacon Inc., Gasport, N.Y.

California Container Corp., Emeryville, Calif.

Continental Paper Products Co., Denver, Colo.

Frank L. Deane & Son, Benton Harbor, Mich.

Fibreboard Products Inc., San Francisco, Calif.

Fruit & Produce Packing, Inc., Indianapolis, Ind.

Hinde & Dauch Paper Co., Sandusky, Ohio

New Albany Box & Basket Co., New Albany, Ind.

Fred C. Strype, New York, N.Y.

Edwin C. Tyson, Flora Dale, Pa.



FRUIT PROCESSING

Clarifying Agents

American Colloid Co., Chicago, Ill.
Braun-Knecht-Heimann-Co., San Francisco, Calif.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
Johns-Manville, New York, N.Y.
Scientific Filter Co., New York, N.Y.

Cloths, Press

A. B. Farquhar Co., Ltd., York, Pa.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
Palmer Bros., Cos Cob, Conn.
Thomas-Albright Co., Goshen, Ind.

Cookers, Apple Butter

Brighton Copper Works, Cincinnati, Ohio
Eucyrus Copper Kettle Works Co., Eucyrus, Ohio

A. B. Farquhar Co., Ltd., York, Pa.
Arthur Harris & Co., Chicago, Ill.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio

Crushers

A. B. Farquhar Co., Ltd., York, Pa.
Hertzler & Zook Co., Belleville, Pa.
Hocking Valley Mfg. Co., Lancaster, Ohio
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
Palmer Bros., Cos Cob, Conn.

Extractors, Juice

American Utensil Co., Chicago, Ill.
Burns Mfg. Co., Syracuse, N.Y.
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
L. O. Koven & Bro., Inc., Jersey City, N.J.
F. H. Langenkamp Co., Indianapolis, Ind.
New Standard Corp., Mt. Joy, Pa.

Filling Machinery, Bottle

American Seitz Filter Corp., New York, N.Y.
Elgin Mfg. Co., Elgin, Ill.
Everedy Machine Co., Philadelphia, Pa.
Geo. Meyer Mfg. Co., Cudahy, Wis.
Pneumatic Scale Corp., Quincy, Mass.
Scientific Filter Co., New York, N.Y.

Filters, Fruit Juice

American Seitz Filter Corp., New York, N.Y.
Cuno Engineering Co., Meriden, Conn.
Dicalite Co., New York, N.Y.
Filter Paper Co., Chicago, Ill.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
Johns-Manville, New York, N.Y.
Oliver United Filters, Inc., Hazelton, Pa.
Palmer Bros., Cos Cob, Conn.
Scientific Filter Co., New York, N.Y.
Seattle Tent & Awning Co., Seattle, Wash.
T. Shriver & Co., Harrison, N.J.

Glassware

Armstrong Cork Co., Lancaster, Pa.
Ball Bros. Co., Muncie, Ind.
Hazel-Atlas Glass Co., Wheeling, W.Va.
Kerr Glass Mfg. Corp., Sand Springs, Okla.
Owens-Illinois Glass Co., Toledo, Ohio
Tygart Valley Glass Co., Washington, Pa.

Graters

A. B. Farquhar Co., Ltd., York, Pa.
Hamilton Metal Products Co., Hamilton, Ohio
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
New Jersey Agricultural Works, Trenton, N.J.
Palmer Bros., Cos Cob, Conn.
Thomas-Albright Co., Goshen, Ind.

Grinders

A. B. Farquhar Co., Ltd., York, Pa.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Hocking Valley Mfg. Co., Lancaster, Ohio
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
New Jersey Agricultural Works, Trenton, N.J.
Palmer Bros., Cos Cob, Conn.
Papac Machine Co., Shortsville, N.Y.
J. B. Sedberry, Inc., Utica, N.Y.
Stover Mfg. & Engine Co., Freeport, Ill.
Thomas-Albright Co., Goshen, Ind.

Kettles, Cookers and Vats

Atlas Copper & Brass Mfg. Co., Chicago, Ill.
Brighton Copper Works, Cincinnati, Ohio
Eucyrus Copper Kettle Works Co., Eucyrus, Ohio
A. B. Farquhar Co., Ltd., York, Pa.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Arthur Harris & Co., Chicago, Ill.
F. H. Langenkamp Co., Indianapolis, Ind.
Pfaudler Co., Rochester, N.Y.

Parers, Apple

Boutell Mfg. Co., Rochester, N.Y.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Kelsel & Co., Chicago, Ill.
F. B. Pease Co., Rochester, N.Y.

Pasteurizing Outfits

Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Glascote Products, Inc., Cleveland, Ohio
Pfaudler Co., Rochester, N.Y.

Presses, Fruit

Cutaway Harrow Co., Higganum, Conn.
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
A. B. Farquhar Co., Ltd., York, Pa.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Hertzler & Zook Co., Belleville, Pa.
Hocking Valley Mfg. Co., Lancaster, Ohio
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
New Jersey Agricultural Works, Trenton, N.J.
Palmer Bros., Cos Cob, Conn.
Thomas-Albright Co., Goshen, Ind.
Edwin C. Tyson, Flora Dale, Pa.

Pressure Cookers and Sterilizers

American Seitz Filter Corp., New York, N.Y.
Ball Bros. Co., Muncie, Ind.
Burpee Can Sealer Co., Chicago, Ill.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
National Pressure Cooker Co., Eau Claire, Wis.
Wisconsin Aluminum Foundry Co., Inc., Manitowoc, Wis.

Pulpers

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
A. B. Farquhar Co., Ltd., York, Pa.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
F. H. Langenkamp Co., Indianapolis, Ind.
Queen City Engineering Co., Buffalo, N.Y.

Pumps

American Well Works, Inc., Aurora, Ill.
Decatur Pump Co., Decatur, Ill.
Deming Co., Salem, Ohio
Duro Co., Dayton, Ohio
A. B. Farquhar Co., Ltd., York, Pa.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio
Palmer Bros., Cos Cob, Conn.
T. Shriver & Co., Harrison, N.J.
Thomas-Albright Co., Goshen, Ind.
Trupar, Inc., Dayton, Ohio
Weinman Pump Mfg. Co., Columbus, Ohio

Rubber Jar Rings

Acme Rubber Co., Trenton, N.J.
Ball Bros. Co., Muncie, Ind.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Broadway Rubber Mfg. Co., Louisville, Ky.
B. F. Goodrich Co., Akron, Ohio
Jenkins Bros., Bridgeport, Conn.
United States Rubber Co., New York, N.Y.

Sealers

Burpee Can Sealer Co., Chicago, Ill.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
National Aluminum Mfg. Co., Peoria, Ill.
National Can Co., Inc., New York, N.Y.
National Pressure Cooker Co., Eau Claire, Wis.

Slicers

Boutell Mfg. Co., Rochester, N.Y.
Food Machinery Corp., Anderson-Barngrover
Div., San Jose, Calif.
F. B. Pease Co., Rochester, N.Y.
Rollman Mfg. Co., Mt. Joy, Pa.

Sodium Benzoate

Carus Chemical Co., Inc., La Salle, Ill.
Heyden Chemical Corp., New York, N.Y.
Hooker Electro Chem. Co., Niagara Falls, N.Y.
Mallinckrodt Chemical Works, St. Louis, Mo.
Monsanto Chemical Co., St. Louis, Mo.
Seydel Chemical Co., Jersey City, N.J.

Sulphur Dioxide

Braun-Knecht-Heimann-Co., San Francisco, Calif.
E. I. du Pont de Nemours & Co., Inc., Grasselli Chemicals Dept., Wilmington, Del.
Virginia Smelting Co., West Norfolk, Va.

Vinegar Equipment

A. B. Farquhar Co., Ltd., York, Pa.
Palmer Bros., Cos Cob, Conn.

SOBENATE
the special
SODIUM BENZOATE
that does not alter taste
Literature on request
Seydel Chemical Co.
JERSEY CITY, N. J.
Quarter of a Century of Service

PAGE 45

BENZOATE

Odorless and Tasteless for Cider
and Fruit Juice Preservation

1 lb. Lots 85c
5 lb. Lots \$3.25

Full directions with each package.

Write also for data on using Carus Manganese Sulfate FG for the fertilization of your plants on high lime soils. Handbook Free!

Carus Chemical Co., Dept. AF41, LaSalle, Ill.

HYDRAULIC PRESSES
for CIDER and GRAPE JUICE
Built in All Sizes

Press Cloths, Press Racks, Apple Grinders
Valves, Packings, Repairs of all kinds

Write for Catalogue and Prices

THOMAS-ALBRIGHT CO.
GOSHEN, IND.

NEAR-BY DEALERS IN ORCHARD SUPPLIES

ALABAMA

Adair's Insect Control Service, Montgomery

ARKANSAS

Lincoln Lumber Co., Lincoln
R. L. Earnest Co., McRae
Growers Supply Co., Nashville
B. B. Brogdon Spray Supply Co., Springdale

CALIFORNIA

Soper Brothers, 344 S. Central, Chino
Hughson Warehouse Co., Hughson
Baker & Co., Inc., Modesto
J. H. Steves Hardware Co., St. Helena
Harry Crowe Hardware & Electric
Works, Tulare

COLORADO

Palmer & Joslyn, Inc., Cedaredge
United Marketing Exchange, Delta
The Union Fruit Co., Paonia

CONNECTICUT

Harold R. Rowe, Elmwood
Apothecaries Hall Co., Waterbury

DELAWARE

O. A. Newton & Son Co., Bridgeville
T. S. Smith & Sons, Bridgeville

FLORIDA

J. C. Smith & Son, Palmetto
Tate-Phillips Co., Winter Haven

GEORGIA

Stembridge Bros., Ella Gap
W. G. Wingate, Ellijay
Anthoine Machine Wks., Ft. Valley
DeVaughn Hardware Co., Montezuma
J. B. Easterlin, Jr., Montezuma
Lynn McKenzie, Montezuma
O. W. Jones & Son Hardware Co.,
Thomaston

IDAHO

Chaney Wholesale Co., Fruitland
Fruitland Cooperative, Inc., Fruitland
Lewis Yoder Co., Box 788, Nampa
J. C. Watson Co., Box 277, Parma
Frank B. Arata Fruit Co., Payette
H. B. Long, Box 711, Twin Falls

ILLINOIS

John J. Keith & Son, Alto Pass
Hardin Orchard Supply Co., Anna
Austin Harris, Chester
H. A. DuBois & Sons, Cobden
Calhoun Supply Co., Hardin
Benoist Bros., Mt. Vernon
Sho-Off Orchard Products Co., 107 N.
Washington St., Peoria

INDIANA

Cory Orchard Supply Co., 136 S. Senate,
Indianapolis
Kenney Machinery Co., 301 West Maryland St., Indianapolis
Bornwasser-Gwin Implement Co., New Albany

KANSAS

Monahan & Crumm, 3416 Strong Ave.,
Kansas City

KENTUCKY

Louisville Chemical Co., Louisville

MAINE

H. P. Berry & Son, Livermore Falls

MASSACHUSETTS

Frost Insecticide Co., Arlington
Nashoba Orchard Service, Inc., Ayer
Robinson Farm Machinery Co., Natick

When something is needed quickly the dealer in orchard supplies located nearest to you will save you time and trouble. What he does not have in stock he can obtain for you. These dealers in orchard supplies have arranged with AMERICAN FRUIT GROWER to answer your questions and inquiries promptly.

MICHIGAN

C. V. Yoder, Almont
Central Hardware, Central Lake
Morrissey Farm & Orchard Supply, Comstock Park
Bartlett Mfg. Co., 3003 E. Grand Blvd., Detroit
Sprayer Supply Mfg. Co., Grand Rapids
Consumers Supply Store, Hartford
Carrier-Stephens Co., Lansing
Hunt's Drug Store, St. Johns
South Haven Chemical Co., Inc., South Haven
Pratt & Gleason, Route 1, Traverse City
Queen City Implement Co., Traverse City
Traverse City Implement Co., Traverse City

MINNESOTA

B. R. Neilson Hardware, Long Lake
H. E. Erickson Co., Inc., 245-2nd Ave. So., Minneapolis

MISSOURI

R. L. Barr Hardware Co., Exeter
J. E. May, Gray Summit
Evans Orchard Supply Co., 305 Delaware, Kansas City
Fred O. Ehlers, Lemay

MONTANA

Fred T. Parker Co., Hamilton

NEBRASKA

Miller Chemical Co., Inc., 15th and California Sts., Omaha
Farmers Grain & Supply Co., Weeping Water

NEW JERSEY

C. A. Lippincott & Bro., Inc., Moorestown

NEW MEXICO

J. Korber and Co., Albuquerque
Mead Hardware Co., Albuquerque
Revel Brothers, Albuquerque

NEW YORK

Van Nouhuys Pump & Supply Co., 131-133 Hudson Ave., Albany
F. A. Read, Inc., Albion
Millard Frink, Altamont
Barker Chemical Corp., Alton
James S. Vosburgh, Athens
B. Ressegue & Son, Barker
John Bacon, Inc., Gasport
Payne & Trimble, Holley
A. H. Phillips Mfg. Co., Hulberton
Insecticide Corp. of America, Medina
Henry S. Brower, Middleport

B. Ressegue & Son, Middleport
B. Ressegue & Son, Newfane
E. Stuart Hubbard, Poughkeepsie
Double Twirler Spray Nozzle Corp., Red Hook

Stanton S. Allen, Stuyvesant Falls
McQueen Brothers, Wolcott

NORTH CAROLINA

M. C. McDonald, West End

OHIO

Russell Farley & Co., 309 Silver St., Akron
Ivor M. Parker, Clyde
Ohio Horticultural Services, 2060 South High St., Columbus
Trotter Hardware, East Liverpool
Farmers Implement & Supply Co., Marion, Ohio
Rollin H. Tabor, Mt. Vernon
Emery C. Leow, Oak Harbor
U-Need-Us Coal & Chemical Co., Painesville
W. H. Matthews, Box 313, Salem
Wilbur W. Reynolds, Utica
G. H. Holden, Wakeman
Tilton's Hardware, Whitehouse

OKLAHOMA

Adelman Hardware Co., Bixby

OREGON

Milkiewa Feed Mills, Milwaukee
R. J. McIsaac & Co., Parkdale
Miller Products Co., Portland

PENNSYLVANIA

Jno. Burton Arbuckle, Erie
Tyson Orchard Service, Flora Dale
John E. Huntsinger, Hegins
M. R. George Hardware, Mt. Pleasant
John D. Kline, Shartlesville
Fruit Growers of Chester County, Inc., West Chester

SOUTH CAROLINA

Prince & Shehan, Inc., Inman

TENNESSEE

Austin Feed & Seed Co., Chattanooga

TEXAS

O. S. Gray, Box K, Arlington
Geo. E. Darsey & Co., Grapeland

UTAH

E. C. Olsen Co., Inc., 377-31st St., Ogden
Patten & Ekins, Box 97, Provo
Wasatch Chemical Co., 2225 South Fifth East, Salt Lake City

VIRGINIA

Tripplett & Vehrencamp, Mount Jackson
Southern States Roanoke Service, Roanoke
Barr's Orchard & Farm Supply, Winchester

WASHINGTON

C. E. Blackwell & Co., Inc., Okanogan
H. R. Spinner Co., Box 1409, Wenatchee
Wells & Wade, Wenatchee
Yakima Hardware Co., Yakima

WEST VIRGINIA

Charles Town Chemical Co., Inc., Charles Town
G. "Mose" Parkins, Martinsburg

WISCONSIN

Jackson-Kostka Co., Sturgeon Bay
Frank Knuth, Sturgeon Bay

Protection-Plus

Black Leaf 155 14%

Protective programs must combat a variety of destructive pests. Black Leaf 155 14% provides non-caustic codling moth control—and includes contact-action that controls several pests destructive to foliage and fruit.

"Protection-plus" includes control of leafhopper nymphs, with early "inside" sprays; bud moth larvae, with mid-summer "inside" sprays; summer aphid infestations; leaf-miners; hatching casebearers and pear psylla when combined with summer oil. On grapes, Black Leaf 155 14% controls leafhoppers and berry moth.

"Protection-plus", without a residue problem.

TOBACCO BY-PRODUCTS & CHEMICAL CORP.
INCORPORATED
LOUISVILLE, KENTUCKY

4147



Black
Leaf

PHOTOGRAPHIC
PROOF... THAT

SHERWIN-WILLIAMS
STOP-
DROP

ACTUALLY DOES
STOP DROP

STOP-
DROP

SPRAYED
TRANSPARENTS

Illinois grown Transparents
sprayed with STOP-DROP.
Eleven apples dropped pre-
maturely.

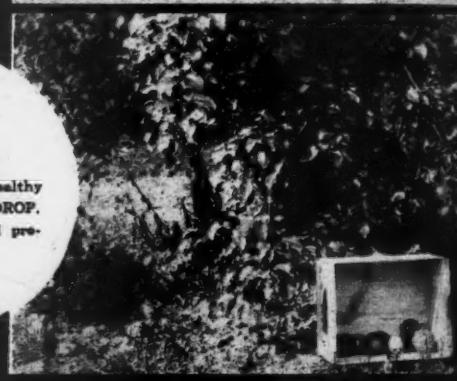


UNSPRAYED
TRANSPARENTS

Illinois grown Transparents
unsprayed. 320 apples drop-
ped prematurely.

SPRAYED
WEALTHY

New York grown Wealthy
sprayed with STOP-DROP.
Seven apples dropped pre-
maturely.



UNSPRAYED
WEALTHY

New York grown Wealthy
unsprayed. Almost a bushel
dropped prematurely.



SPRAYED
MacINTOSH

New York grown McIntosh
sprayed with STOP-DROP.
One-third of a bushel
dropped prematurely.



UNSPRAYED
MacINTOSH

New York grown McIntosh
unsprayed. Approximately
five bushels dropped pre-
maturely.



SEE FOR YOURSELF
Here is the Evidence

IF YOU HAVE SPECIFIC QUESTIONS TO ASK, WRITE
THE SHERWIN-WILLIAMS CO., INSECTICIDE DEPT.,
101 PROSPECT AVENUE, CLEVELAND, OHIO